# MODERN PHYSICAL EDUCATION

#### INCLUDING

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#### $\mathbf{B}\mathbf{Y}$

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LONDON: ANDREW MELROSE LTD. 3 YORK STREET, COVENT GARDEN, W.C. 2 1920

### PREFACE

THE Great European War has given much prominence to the *physique* of the nation, and some astounding facts have been disclosed as to the low general standard of health and development of a large percentage of men under the age of forty.

Although such a state of affairs might have proved disastrous in the war, it is no less a menace in times of peace, and that more attention will have to be given to physical education in the near future is a foregone conclusion.

Had the examinations for passing men into military service been extended to all classes of the community, much interesting data would have been recorded upon which future action could be centred.

Philosophers and educationists have never ceased calling attention to the fallacy of treating the human being as a mental subject, rather than an inseparable combination of physical and mental forces, with the latter to a large extent recumbent on the former; for be it remembered that the highest efficiency can only be secured from healthy and adequately proportioned structures.

The mind is assuredly not at its best if the body is labouring under difficulties.

Cases of extraordinary intellect with feebleness of physique may be cited, but little argument is needed to show that such instances are exceptions, where the mind has thrived in spite of bodily defects.

The brain is dependent upon the same blood supply as the remaining parts of the system, and must participate in any adverse conditions affecting that supply.

It is unfortunate that the unsatisfactory position was not brought into prominence by circumstances other than the war, as there will be a tendency to look upon any steps taken to improve matters as a preparation for future emergencies. This, to those who have studied the history of physical education, is likely to be seriously prejudicial to its progress, owing to the extreme suspicion which follows anything savouring militarism.

When the just claim of physical education is appreciated, and it receives its proper place in the school curriculum, there will be no further talk of Britain being a C3 nation.

H. E. N.

M. P. T.

### ILLUSTRATIONS

THE Authors tender their thanks to Mr. A. Line for the drawings which are reproduced herein.

### NOTICE

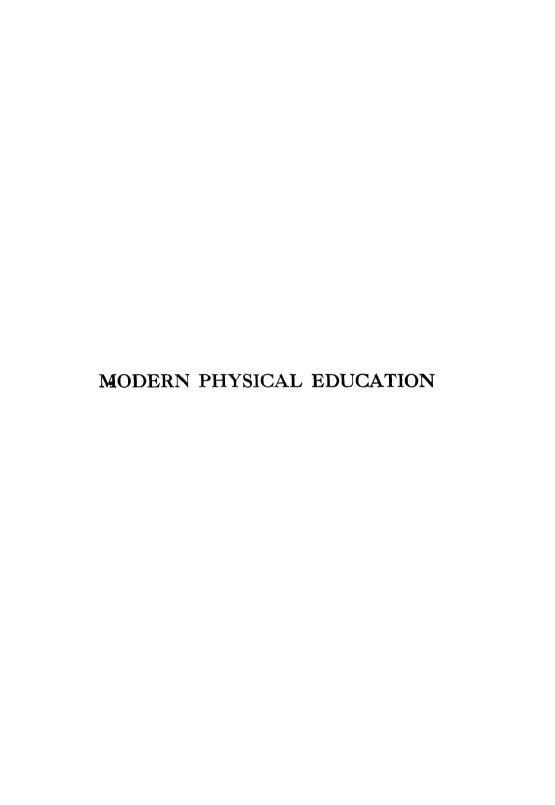
To have published this work as originally intended, special chapters on anatomy and physiology, as applied to physical education, together with a list of superficial muscles and their actions, would have been included, but these have been held over to prevent the book being unwieldy.

It is hoped that a further volume dealing with the subjects named, and treating with the different types of muscular actions of certain exercises, with and without apparatus, will shortly be available.

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### MODERN PHYSICAL EDUCATION

### HISTORY

SURPRISING though it may seem, many persons have only recently made their acquaintance with Physical Education, and view it as a form of training brought into operation to create fighting qualities.

It may be interesting, therefore, to supply a short outline of some historical events relating to this subject.

Very early writings refer to certain movements which the Chinese performed as far back as 3000 years B.C., but it is with regard to the Greeks that more definite information is to hand. The Olympic Games (instituted 1453 B.C.) furnish ample details of the importance then placed upon bodily training. Connected with their religious festivals were also the Isthmian, Pythian, and Nemean Games.

Hippocrates, Plato, and Aristotle (400-300 B.C.) make frequent reference to "gymnastics," a type of exercise executed in the nude, so that people might view the beautiful proportions of the athletes, and the actions of their muscles.

In the Middle Ages Rabelais and Montaigne both strongly advocated that the training of the body should be included with the training of the mind.

In 1774, Basedow (Germany) introduced physical exercise as part of the educational routine at an Institute at Dessau, and Gutsmuths followed this with a book entitled Gymnastics for Youth, in which he emphasised a definite physiological basis as essential for such training. Jahn (b. Aug. II, 1778) gave gymnastics a further impetus in Germany and founded the "Turning" system, which became so popular. Physical Education was introduced into the German schools by the Government in 1837.

To Spiess (b. Feb. 3, 1810), a teacher of gymnastics in Switzerland, is attributed a system of free exercises aiming at a uniform development of the body.

While Germany was devoting so much attention to physical training, Peter Henri Ling (b. Nov. 15, 1776) founded what is known as the Swedish system. After meeting with many difficulties, he obtained Government recognition, and in 1814 opened the Central Institute, Stockholm.

Gymnastics was started in America by Follen at Harvard in 1826, and was very quickly taken up in other Universities. The Boston Normal School was founded in 1889 to foster the Swedish system. Of more recent years America has adopted its own system, which amalgamates parts of the German and the Swedish with American innovations and games.

Italy, France, and Switzerland have followed, more or less, along the German lines, although they do not adopt a foreign hall-mark.

Until the middle of the nineteenth century plasical exercise in England consisted almost entirely of athletic games. Even the Education Act of 1870 paid little heed to bodily training, and when in 1895 provision was made for instruction in this subject in the schools, it was left to the ordinary teaching staff, already overloaded, to administer. An improved syllabus issued in 1904 was revised in 1905 and again in 1909, while a further modification has recently been published, dated 1919. One hour per week (three lessons of twenty minutes each) is now allotted for physical exercise in elementary schools, and teachers are required to undergo a course to fit them for training children. Further reforms are pending.

The Army had a very crude system of physical exercises until 1861, when Archibald Maclaren took charge of the training and the Aldershot gymnasium was erected.

In 1903 the Navy adopted the Swedish system, and a number of experts were invited to Portsmouth to train instructors.

In 1906 the Army took up the Danish interpretation of the Swedish system.

The first gymnasium in England was established on Primrose Hill, London, in 1826, by Prof. Voelker (a pupil of Jahn's),

and in 1856 the Athenæum Gymnastic Club was founded in Manchester.

Voluntary gymnastics received a great impetus in the same town in 1860, when the German Gymnastic Society held its first gathering in this country. A year later a centre was opened at Myddleton Hall, Clerkenwell, and in 1865 the German Gymnasium, St. Pancras, was started. The movement has spread throughout England, and every town now has its gymnasia.

Several Training Colleges for teachers have been established, and the time is not far distant when degrees in Physical Education will be recognised by the Universities. Certificates are at present issued by the British Association for Physical Training, founded 1919 (an amalgamated body of the British College of Physical Education, founded 1891, the Gymnastic Teachers' Institute, founded 1897, and the National Society of Physical Education, founded 1897); also by the Ling Association, founded 1889, and various Training Colleges.

### DEFINITION

THE application of descriptive terms to a subject is not infrequently responsible for misconception as to its real objects. Possibly "gymnastics," "physical culture," "German system," "Swedish system," "kinesiology," and innumerable other terms have been accountable for many crude ideas on physical education.

"Gymnastics." as applied to the primitive bodily training adopted by the Greeks, denoted the art of regulating the movements of the naked body, but its modern application refers to definite exercises, with and without apparatus, taken in the gymnasium

Under "physical culture" there has been much juggling, and many quasi experts have introduced certain forms of muscle-training, together with weight-lifting, which are unworthy of mention, except by way of strong condemnation.

The controversy of "systems" has not helped matters, and the two forces advocating the Swedish and German methods respectively would have been better engaged in uniting their efforts on a common ground, by promoting a scheme of training which would be adequate in the fullest and broadest sense for the British nation. To assume that either the one or the other must be taken in its entirety and pressed home in this country, without modification or adaptation, is to take the narrowest view conceivable of a science which has unlimited possibilities.

What, then, is a true definition of "Physical Education"? It is the science of training all the physical organs to carry out their functions efficiently, with the aim and purpose of promoting health. Although the training of the muscles is of the utmost importance, and by exercising them they increase in size and strength, there are two essential features to remember, namely, (I) unless the muscles are systematically developed, deformity

rather than improvement is likely to result; (2) that it is impossible to treat the muscles as a separate part of the bodily machinery.

While the muscular system usually gives some indication of the physical state of the body, it must not be taken for granted that a well-set-up person is, perforce, physically fit. The word "physical" embraces the whole of the bodily organs, and when it is realised that one cannot be alienated from another, it will readily be understood that a genuine system of physical exercise must aim at the training of the whole, and not merely one section, of the body.

The muscular system might be likened to the hands of a watch. If the internal parts are in good working order, a correct external record may be expected. On the other hand, if the works are out of repair, the hands are not to be depended upon. In the human structure the muscles form the visible portion of the physical machinery, and when the internal organs are working satisfactorily it is safe to assume that they will exhibit a healthy condition. Physical Education aims, in fact, as much at developing and improving the internal organs as at strengthening and co-ordinating the muscular system.

Details of the approach to the interior by way of the exterior are to be found in the following physiological facts:

Movement is directed by the contraction of the muscles passing over joints whereby the bones are worked in various directions. When muscles are exercised blood flows freely to them in order to supply certain essential constituents to replenish waste, and to carry off the products of combustion. The muscles benefit by this extra flow of blood, likewise the bones and other tissues in the vicinity.

This increase in the circulatory system creates a demand upon the heart which, beating faster and stronger, itself becomes capable of increased activity. To perform its functions properly the blood, in turn, relies upon a number of other systems, e.g. the digestive for nourishment, the respiratory for oxygen, and the excretory for the climination of impurities.

Extra nourishment being required of the digestive system,

that system is called upon to abstract more building-up material from the food, and improved absorption results.

Similarly, the lungs function more fully and vigorously in providing oxygen and eliminating carbonic acid gas, and their tissues become more healthy.

This extends to the excretory system, peristalsis is assisted, and the skin and kidneys more thoroughly dispose of various acids, salts, and water.

Governing the whole of the physical activities, the nervous system, with the brain as its head centre, is stimulated by physical exercise, mind and body are co-ordinated, and each organ regulated in such a way that it satisfactorily executes its allotted task. Such a condition is termed Health.

It would not be appropriate in this volume to go into elaborate details of anatomy and physiology, nor is it necessary, having regard to the numerous text-books dealing specially with these subjects, but a knowledge of the structures and functions of the body is vital on the part of those who would intelligently conduct Physical Education.

### NECESSITY

I Thas been explained that the physical organs improve by being judiciously exercised, and this is true at every period of life. Without proper functioning the muscles become weak and flaccid, the heart loses energy, resulting in a corresponding feebleness in the circulation of the blood, the breathing becomes shallow, con-cipation and excretory troubles often prevail, and a general state of debility arises.

Unfortunately, civilisation has developed along paths which have tended to reduce bodily exercise to a minimum, necessitating special means for restoring the physical balance. It might be urged that physical training is unnatural, but evolution invariably creates new demands, as well as opening fresh channels.

The ramifications of science in the direction of machinery alone have so lessened manual labour that, if atrophy and depreciation are to be arrested, steps must be taken to make up the deficiency.

The power of a nation, industrially or otherwise, undoubtedly depends on the collective health and strength of its people.

Necessity, then, has given birth to modern physical education, as by it is provided the means for keeping pace with the times.

To name one or two instances of the reduction of physical exercise, the train, motor-bus, and electric tramcar displace, to an extraordinary extent, the need for walking. The telephone, electric bell, and revolving chair still further gratify the desire for ease in office life—e.g., it is only necessary to press a button, which rings a bell, and an official is able to call up an assistant to whom he will turn by revolving in an up-to-date seat, thus obviating walking as far as the door, or twisting the body, either of which movements would be of great value as an exercise.

This is not confined solely to business life, for the school career in a large number of cases paves the way for such inactivity and destroys the desire for utilising the bodily forces.

Another striking feature is the uneven growth of the body, which modern life has a propensity to produce. Improper attitudes assumed at the school and office desk, also in the workshop, favouring spinal curvature; prolonged disase of the extensor muscles of the foot, or fatigue by over-use, leading to flat-foot; continual bending forward and pressure against a desk or some other object, engendering round shoulders, flat chest, poking chin, and general inertness of the limbs, resulting in defective development—all of which need to be counteracted and corrected.

## PERIOD AT WHICH PHYSICAL EDUCATION SHOULD BEGIN

THE axiom, "function makes structure," applies throughout life, and to all tissues of the body. The body, like the brain, is most plastic in child life, and it will then mould itself in a right or wrong direction according to environment. Too much care cannot be exercised, therefore, in the training of young children, not only because the place is susceptible to its advantages, but also its disadvantages, if improperly applied.

On entrance into this life, children immediately begin to kick and throw their arms about in order to obtain the exercise essential for their growth.

It is most interesting to watch the gradual development of a child. The linking up of mind and body is easily discernible. In the earliest stages the baby will recognise its parents, and later become acquainted with various objects, making use of its hands to grasp them, and perform very definite movements, proving conclusively that its mental and physical faculties are uniting and advancing

The process of mind and body education invariably runs concurrently until the school age is reached, when a new phase of life is introduced. Unnatural limitations are then placed upon the child, and mental claims pressed out of all ratio to the physical.

This uneven training, together with many evil results, becomes apparent after a few years, and when mature age is reached the brain is abnormal in comparison with the body.

The inexpediency of such a system has already made its impression Hundreds of thousands of young men were rejected as unfit for the Army and Navy, and this, in view of the moderate standard of physique required by those Services, is

very strong evidence that something has been lacking in the

upbuilding of the manhood of the nation.

That the body hould be subordinated to the mind is granted, but only so far that the will may exercise control over it. Once the physical powers are allowed to deteriorate, however, apart from the fact that the mind has not the authority it should have, the body actually becomes a menace and threatens the effectual working of the brain itself. Lack of co-ordination is a detail compared with the general weakness which follows the absence of proper functioning of the physical organs, and the unprotected condition of the body against disorders and disease, which are ever ready to assail it. Thus, at a time when there is an inherent impulse to be vigorous, the body is restricted and directed along a path which leads to the pursuance of a sedentary life.

It is evident from this that the most suitable time to intro duce physical education is when there is an unquenchable desire for motion, *i.e.* in child life. At this stage exercises need very careful selection, so as to create interest and foster natural inclinations. Failing this, the object may be defeated and cause an aversion which succeeding years may fail to obliterate.

An active school life will favour an active business career, as, having felt the benefits of physical activity, an ambition will have been kindled which will not easily be dispelled

### ADAPTABILITY

I must always be remembered that the greatest benefit for the greatest number is one of the chief conditions attached to physical education, and on no account can any limitations be placed on its sphere of activity.

Undoubtedly individual training has many advantages to training en masse, but the difficulty of the former, except in very special cases, is out of all proportion to the benefits accruing from collective training.

While fully recognising that age, physique, ability, environment, and numerous other features call for consideration, and yet differ in any group of persons, it is still possible to arrange series of exercises to meet given requirements without making them too strenuous for the weaker members, or too weak for the matured, provided that some form of classification is adopted which brings the assembly as nearly as possible into line.

To illustrate this point, school children in any given class are usually within a reasonable radius of each other, and, given a few facts to work upon, tables of exercises may be drawn up which will prove suitable and beneficial to all. Slight modification, if necessary, can always be made by a trained teacher, or certain students may be excluded from particular movements where special circumstances exist.

The period following school life is rather more difficult to deal with, as business occupations are so diverse and the time available limited. Nevertheless, it is invariably practicable for young men and women to obtain the necessary exercise to enable them to maintain bodily health if they so desire.

Recreation, also, is indispensable right through life, although the national games which attract a percentage of young folk cannot be considered as sufficient for a physical programme. A cursory examination of most games will prove

their insufficiency as a complete health training. Indeed, actual harm may ensue from injudiciously following certain games, as they are opposed to symmetrical development and healthy functioning of the bodily organs.

It is a common occurrence for young men in o fices, who travel to and from their business by motor-bus, tramcar, or train, to indulge in a violent game of football, taxing the vital organs to the utmost, for one hour and a half on a Saturday afternoon. Obviously the effects of such a game are likely to be harmful, and it is not to be wondered at that medical examination frequently reveals heart or lung trouble.

Other games might be cited where uneven development and spinal curvature are favoured.

When age advances to a stage where these games are considered too violent, physical exercise is either dropped or replaced by such pastimes as croquet or bowls. Again, any one who has watched either of these must be prepared to admit that the one-hand throwing of the bowl and the stooping posture, or the leaning to one side and bending forward in croquet, are against the canons of bodily improvement if taken alone.

In these circumstances something beyond games must be included in a national scheme of exercise to meet the demands of all classes. The deletion of organised games is not by any means suggested, but they must be given a rightful place, and conducted under proper conditions in the scheme of training. Their inclusion, then, will be of inestimable value in providing recreation and exercise.

Physical education does not imply tedious, irksome, unattractive exercise, but its fundamentals must not be undermined solely for the purpose of securing amusement.

Analysis and classification of movement according to effects has established a collection of materials from which may be drawn supplies to comply with almost any demand.

Like the practitioner who diagnoses the case of his patient and prescribes treatment, so the teacher, on becoming acquainted with details of an individual or class, will be in a position to compile a table of exercises. The variety of circumstances, and the means of meeting them, will be appreciated more readily by reference to the chapter on "Table Making."

From the boy or girl of tender age to the man or woman of matured years, it is unquestionably possible to arrange a graduated course whereby their physical requirements may be met.

### MOVEMENT

WITH such a wonderful mechanism as the human body, it is of the highest importance, when aiming at its improvement or maintaining its efficiency, to be thoroughly conversant with the effects of exercise, and the relationship to the laws of anatomy and physiology. In other words, it would be absurd to perform a number of movements indiscriminately and expect satisfactory results.

The acquaintance with various types of movement, the strength of leverage, the amount of mental activity demanded, methods of making pregression and the best manipulation, all demand careful consideration if the highest benefits are to accrue.

The body is capable of making an unlimited number of different movements, and there should be no misapprehension that physical education is confined to a series of hard-and-fast exercises, demanding definite positions to be assumed at the bidding of a command, without any initiative being allowed on the part of the student.

Movements may be separated into two main divisions, "Active" and "Passive."

Active exercise is movement of a voluntary type performed at the bidding of the will (sometimes without, as in "Reflex action") without any assistance from external forces.

Passive exercise (in which massage is included) involves movement decided and brought about by outside agencies without the patient controlling it. Under this heading a large proportion of medical gymnastics may be grouped, an operator working the limbs or other parts in order to stimulate the joints or tissues and prevent stiffening or wasting. In cases of temporary disablement through derangement, passive exercise is often the means of maintaining the necessary life in the tissues, or aiding the return of the normal faculties.

Special machines have been designed for the feet, legs, arms, head, and trunk, which exercise those parts in a variety of ways.

For educational purposes, "active" movement only is adopted, and the exercises selected aim at obtaining specific effects. They are, therefore, placed in groups as described in later chapters.

Of muscular actions there are three kinds, namely, concentric, excentric, and static.

Concentric action is the shortening of a muscle from a common centre, as in the case of the biceps when flexing the forearm on the upper arm.

Exceptric action is the working of a muscle through its length, the origin moving away from the insertion, or vice versa. If a weight has been lifted by bending the arm, the gradual straightening of the elbow to lower it will cause the biceps to work to prevent the arm from dropping suddenly, but although in a state of contraction there will be a gradual lengthening.

Static contraction takes place when a muscle, in a state of activity, maintains a fixed position. In "Front Leaning Rest," the abdominal muscles, without any shortening or lengthening, exercise their power to keep the pelvis from rotating, and so prevent the body from sagging in the centre.

### GROUPING AND EFFECTS

WITH the vast number of exercises of different types and varying strengths it is essential to have some means of classifying and grouping them. Careful analysis has resulted in the following divisions and subdivisions being applied:

I. Introductory.

Leg
Span Bend
Heave
Balance
Lateral
Abdominal
Dorsal
Jumping and Vaulting
Marching and Running
Games

Leg
Span Bend
Heave
Balance
Lateral
divisions are
set out in the
following pages.

3. Finisting.

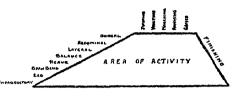
The above succession of movement is described as the "table of order," and every part of the body is taken in a sequence conforming to physiological laws.

It should not be interpreted that because an exercise is placed in, say, the leg group, that it solely involves the leg muscles, as any movement of the body changes the centre of gravity and causes muscles to operate other than those concerned with the particular movement—eg, raising the arm sideways is performed principally by the deltoid, but when contracting, this muscle must work from a fixed point, which it finds in the clavicle and scapula. The bones named are in turn held in position by other muscles, and the wave of action is extended so as to maintain the equilibrium. The main effects arc, however, in the arm and shoulder, and justify the inclusion of the exercise in the heaving and dorsal groups.

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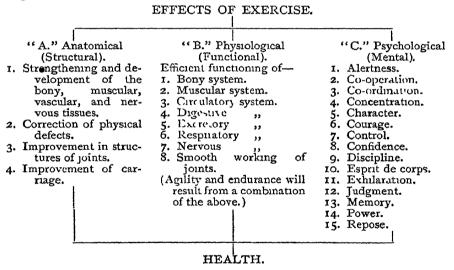
Numerous exercises are equally entitled to positions in two or more groups, and are of special value when a short period only is available for a lesson, on account of their dual effect.

The accompanying sketch will serve to illustrate how a series of exercises work up from light to heavy movements, and then slow down by a



gradual process until a fairly normal condition of the body is again reached.

In this way the strenuous and "massive" exercises are approached without sudden strain on the heart, lungs, or other organs.



To deal briefly with the various groups and their effects: Introductory exercises consist of a series of light movements which serve to introduce the "general" exercises. They should cover, as nearly as time permits, the whole physique, and may be combined with this object. Movements which are well known are preferable, and a head, leg, arm, trunk, and breathing exercise should, if practicable, be inserted. As, however, only one-tenth of the time available for the lesson

is allotted this group, it may be necessary to cut down the exercises to a head and a light leg movement.

Effects.—(A) The strengthening and development of the tissues will be minor and according to the exercises selected. The principal aim is the correction of the carriage and the loosening of the joints.

- (B) Stimulation of the circulatory, respiratory, and nervous systems.
- (C) Cultivation of alertness, concentration, and discipline. Leg exercises are divided into two categories, namely, preparatory and true. The former includes feet closing and opening, and foot placings. The muscular action of these is very minor, but they are important in paving the way for the "true" leg exercises, and form starting positions in many of the other groups. The latter embraces heels raising, heels raising and knees bending, and lunging. In these there is a strong muscular effect, as the whole bodily weight is raised, lowered, or moved when they are performed. Owing to the numerous changes and combinations which may be effected, the leg group opens a tremendous range of exercises.

Effects.—(A) The flexor, extensor, abductor, adductor, and rotator muscles, together with the bony, vascular, nervous, and other structures of the legs, are strengthened and developed; flat foot, bow legs, and knock knees are corrected; improvement in carriage results from a sound base.

(B) By reason of the large muscle groups involved, the circulation of the blood to the legs is greatly increased. This in turn sets up a lively circulation throughout the body, without unduly raising the pressure at the heart. Consequent upon this, leg exercises are placed at the commencement of the "general" table. Such exercises as heels raising, heels raising and knees bending, if taken moderately after violent movements which have accelerated the heart beat and affected the respiration, will tend to hold a quantity of blood in check, and prevent congestion at the heart and lungs, thereby enabling those organs to deal with the excess quantity of carbonic acid gas and meet the demand for extra oxygen. The hip, knee, and ankle joints are made supple and springy:

(C) Healthy development of the legs gives a feeling of power.

Span Bends are divided into preparatory, intermediary, and true exercises. Trunk bending backward from the standing, sitting, or kneeling positions without support for the head or arms come under the first named, and are known as arch flexions. Support may be provided for the hips, loins, or back in such exercises, and they then act as preliminaries, or intermediaries, for the true span bends. The fundamental principle of true span bends is that the legs, together with the head or arms, form a span between the ground and some other object. Support may be provided by another student where apparatus is not available.

In arch flexions the abdominal muscles play an important part, as there is a strong excentric action to prevent the body from falling backward. In true span bends the support at the head or arms takes the strain, and although the abdominal muscles are stretched they are not required to uphold the position of the trunk.

Owing to the strong contraction of the spinal muscles, there is a tendency to cause congestion in the blood vessels and nerves in that vicinity, and movements in this group are followed, therefore, by a complementary exercise, such as trunk for 'ard and downward bending.

It will be noticed that there is much similarity between span bending and dorsal exercises.

Effects.—(A) The back muscles are attract than d and developed, the spine is straightened in the dorsal region, and round back corrected. The chest muscles undergo a strong stretching, and the ribs are spread apart. This induces the thorax to arch forward, and increases its antero-posterior capacity. Further, its mobility is improved and flat chest is counteracted.

(B) By reason of the chest expansion the lungs and heart are given more freedom to perform their functions. The blood takes up more oxygen, and distributes it so that the whole body becomes invigorated In these circumstances it is deemed advisable to place span bending exercises after leg movements.

(C) A well-aerated blood supply to the brain and nerves leads to a better functioning of those organs.

Owing to the great importance of these effects, and their vital significance in the remaining groups, the need for placing span bends in the early part of the table is apparent.

Heaving exercises are divided into preparatory and true movements. Arms raising, parting, flinging, swinging, and stretching all aim at strengthening the muscles of the arms, shoulders, chest, and back. In this respect they are also preparatory for dorsal exercises, as the shoulder-blade muscles are required to contract strongly in order to maintain the position of the scapula, from which other muscles involved find a fixed point to operate.

The true heaves are subdivided into exercises:

- (I) Where the weight of the body is taken by the arms with the feet supported on the ground, as in Fall Hanging and Arch Hanging.
- (2) Where the weight is supported by the arms with, or without, the thighs resting against the apparatus, as in Front Rest or Back Rest.
- (3) Where the weight of the body is suspended by the arms, as in Over-grip Hanging.
  - (4) Climbing exercises.

A feature of the preparatory heaves is that the insertions of the muscles involved are active, while in the true heaves the insertions are fixed and the origins active. Movements of the latter type are exceedingly more powerful, as the body forms the weight, whereas this factor consists of the arms alone in arm stretchings, etc.

Effects.—(A) Strengthening and development of the arms, shoulders, chest, and back muscles (also the abdominal and leg muscles in many of the true heaves), together with the tissues of other organs in those regions. The thorax is lifted and widened laterally.

(B) Owing to the large muscle groups concerned, blood circulation and respiration are proportionately increased. Heaving exercises are, therefore, most appropriately placed after span bends, as the body is prepared for their strong effects.

(C) In certain exercises of the heaving group considerable co-ordination is occasioned, and much judgment required. A feeling of power results from the strength gained, which inspires confidence and courage.

Balance movements are divided into free standing and apparatus exercises. The mere act of standing requires balance (very apparent with young children), and the amount of control-over the body which exists decides how much balance effect any given movement will exert. What may prove a difficult balance to one person may be performed by another with comparative ease. All exercises which reduce the standing base and the lateral stability, or raise the centre of gravity, increase the difficulty to maintain the equilibrium, and demand additional mental activity. Such exercises as heels raising, heels raising and knees bending, knee or leg raising, horizontal (a, b, c)  $\frac{1}{2}$  standing, together with numerous exercises derived from these, constitute free standing balances.

Apparatus exercises include balance standing and balance marching movements, also certain exercises in the "front rest," "back rest," and "sitting" positions.

Effects.—(A) General improvement of nervous tissues and the carriage of the body. The muscular actions are usually slight, delicate control rather than effort being predominant.

- (B) Practically the whole muscular system being involved in balance movements, an even distribution of the blood is set up, and the pressure reduced in any particular part. Following heaving exercises, they have the effect of restoring an even and normal circulation.
- (C) Co-ordination, concentration, and control are cultivated to a high degree.

Lateral exercises are divided into four sections, namely, (1) Trunk turning, (2) Trunk bending, (3) Side leaning rest,

(4) Oblique forward and sideways lunging.

Trunk turning exercises create a contraction and stretching on alternate sides of the oblique muscles of the abdomen, also of the lateral muscles of the trunk and spine. Trunk bending sideways spreads the ribs apart and stretches the muscles on the convex side.

In side leaning rests the muscles of the under side work statically to prevent sagging at the hips.

Oblique forward lunging and sideways lunging bring the lateral muscles of the upper side into action to prevent the trunk from curving over.

"Side Fallings" have been included in the lists of exercises with "Side Bendings" owing to the similarity of the movements, although their muscular actions approximates more closely to "Sideways Lunging"

Effects.—(A) The lateral muscles of the chest, the waist, and the spine are strengthened and developed. Lateral curvature of the spine is corrected.

- (B) Trunk bending to the left creates a strong stretching of the vascular vessels on the right side, prominent among which is the inferior vena cava. When the action is reversed by trunk bending to the right, a contraction follows, setting up a pump-like action. This assists the blood onward through the vessel mentioned, and increases the flow through the portal and hepatic veins. The squeezing of the liver and other abdominal organs aids digestion and excretion, while the widening of the chest increases the respiratory powers.
- (C) The mental effects of this group are of a general character, an efficient working of the respiratory, circulatory, and excretory systems leading to an improvement in the mental disposition.

The body having been somewhat calmed by balance exercises, it is ready for movements of a medium heavy type, and so lateral exercises are inserted. In some instances dorsal exercises are placed after balance exercises, but having in view their similar nature to span bends, it is advisable to separate these two groups more widely, and so the dorsal group is placed after the abdominal.

Abdominal exercises embrace quite a number of subdivisions, but for general purposes four are sufficient:

(1) Trunk backward bending, (2) Knee or Leg raising, (3) Front Leaning Rest, (4) Trunk Falling. It was men-

(3) Front Leaning Rest, (4) Trunk Falling. It was mentioned under Arch Flexions that in Trunk backward bending the dorsal muscles contract strongly, while the abdominal muscles work excentrically to prevent the body

from falling after leaving the upright position. In the subdivision, therefore, exercises will be similar to those in Arch Flexions. Knee or Leg raising is not actually performed by the abdominal muscles, but these have to contract strongly in order to fix the pelvis from which the leg muscles are required to act. It is immaterial whether the exercises are taken from the Standing, Hanging, Between Rest, Back Rest, or Lying position, although, of course, they will vary in difficulty according to the starting position. In the Front Leaning Rest position there is a strong tendency for the body to sag in the lumbar region of the spine. This is avoided by the abdominal muscles working statically and preventing rotation of the pelvis.

Trunk Falling has a resemblance to the Front Leaning Rest, except that it avoids rotation of the pelvis in the opposite direction, as the tendency in this case is for the hips to be pulled over by the leg muscles.

The subdivisions 2, 3, and 4 are therefore very much alike.

- (A) The strengthening of the abdominal muscles enables them to give a firm support to the organs beneath, and their shortening tends to counteract protruding abdomen. Moreover, by holding the pelvis in position, they are corrective for lordosis (hollow back).
- (B) The main object of this group is to improve digestion by setting up a lively circulation of blood to the digestive organs, causing the various glands to secrete and provide the necessary digestive fluids, and at the same time to increase the absorptive power of the lacteals and capillaries. This healthier action of the intestines, together with the pressure which the abdominal muscles are able to exert, assists peristalsis and favours excretion of the fæces.
- (C) It is also difficult in this group to assign special mental effects, although the digestive and excretory systems unquestionably affect the mental faculties and disposition. Persons troubled with indigestion and constipation are not usually the best-tempered type of individuals, nor does their brain give the best response.

Having developed the sides of the body, and increased the flow of blood through the inferior vena cava by lateral exercises, it will be seen that the requirements of the digestive and excictory systems are further met by abdominal movements.

Dorsal exercises are subdivided into preparatory and true. It was pointed out that Arm raisings, partings, flingings, swingings, and stretchings were preliminaries for Heaving exercises, and could be utilised as preparatory dorsal movements owing to the action of the shoulder-blade muscles. The true dorsal exercises, however, require a much stronger working on the part of the back muscles, as the position of the trunk demands a powerful action to raise it from the horizontal or inclined position, or to prevent it from falling or bending. Stoop Standing, Forward Lying, Forward Lunging, Toe Lunging, and Horizontal ½ Standing come in this category.

(A) Although the general nature of these exercises differs, the action of the dorsal muscles is practically the same throughout, the spine being straightened and held in position. The muscles of the back and shoulders are strongly developed, and those of the chest stretched. From a corrective standpoint dorsal exercises are highly valuable, as they draw the shoulder blades backward and downward, counteract round back and poking chin, and expand the chest, all of which lead to a corresponding improvement of the carriage.

(B) The structural improvement of the chest affords greater facilities for the organs of the thorax to work, favouring a better functioning of the heart and lungs. The shoulder joint is also made more supple.

(C) In the preparatory dorsal movements alternate arm stretching undoubtedly requires much concentration and co-ordination, and this is true, only in a lesser degree, to other dorsal exercises. The strengthening of the muscles of the back and shoulders also creates a feeling of power and confidence.

The lateral and abdominal exercises having worked on the sides and front of the body, dorsal exercises are inserted to secure a symmetrical development of the trunk.

Jumping may be summarised as follows:

High Jumps (Standing and running start). Long Jumps ", ", ", Deep Jumps ". "."

High Jumps will include Upward Jumping, and Jumping over ropes or other obstacles; Long Jumps, Jumping forward, and Jumping over given distances—marked by chalk lines or otherwise, and Deep Jumps, Jumping from apparatus or a position above the ground level.

All jumps are divided into three parts: the take-off, the jump, and the landing. The take-off may be single or double from standing or running start, the single being from one foot and the double from two feet. It represents the preparation preceding the leaving of the ground or apparatus. From this point the jump commences, and is that part of the movement where the body is poised in the air. The landing starts as the feet reach the ground.

For effects, see Vaulting. Vaulting is divided into—

Between.

Horizontal (Front, Side, and Screw).

Sit-over.

Stride.

Hanging.

High Front, Screw, and Handsprings.

Introductories to vaults are sometimes given a category to themselves, but it is obvious that leading-up exercises will depend on the ultimate aim. In order to avoid confusion, therefore, the leading-up movements are left until the grouping is dealt with in detail.

Between Vaults consist of vaults where the feet and legs pass between the hands.

Horizontal Vaults are those in which the body and legs pass over the apparatus in a horizontal position, either with the front or side towards it (horizontal front and horizontal side vaults), or else turns as it passes over (horizontal screw vault). They may be taken with two hands or one hand only.

Sit-over Vaults are those in which the body passes over the apparatus in a sitting position, either two hands or one hand only being used.

Stride Vaults.—In these vaults the legs are astride when passing over the apparatus.

Hanging Vaults include all vaults where the body is hanging from ropes or a bar, and is swung over a jumping rope or

other apparatus.

High Front and High Screw Vaults, together with Handsprings, are more or less progressive upon the Horizontal Front and Screw Vaults, the Hand Rest position being lifted or swung to and the body turned so that the dismount is made either with a front or screw vault movement, or allowed to turn completely over. With the last named, the arms may be bent or held straight throughout the movement.

For purposes of effects, vaulting is in the same category as jumping.

In jumping and vaulting practically the whole of the muscles of the body are concerned.

- (A) The tissues of the legs particularly are developed, and the ankle, knee, and hip joints strengthened.
- (B) Circulation and respiration are greatly stimulated, while the shaking up which the digestive and excretory organs undergo induces a more responsive action on their part. The cultivation of agility is a prominent feature.
- (C) Both types of exercises are highly exhilarating, and require keen judgment in order that the effort may be properly timed and directed. They develop to a high degree coordination, control, confidence, and courage.

They are placed in this position in the table as massive movements, and are led up to by previous exercises which deal with specific parts of the body.

Marching exercises are not usually subdivided, but when studying the possibilities of this group the following will provide appropriate headings:

Plain Marching.
Figure Marching.
Tactical Marching.
Ornamental Marching
Exercises on the March.

Plain Marching consists of ordinary slow and quick marching, with changing steps and turnings. The approximate rhythm is 75 steps per minute for slow and 120 for quick, the

length of step varying according to the pupils, from 24 to 30 inches.

Figure Marching will include the formation of various letters, shapes, and figures.

Tactical Marching embraces marching in ranks, wheeling, and changing formations.

Ornamental Marching is a combination of figure and tactical marching, and may include exercises on the march.

Exercises on the March will cover marching with Heels raising, Heels raising and Knees bending, Knee up-bending, Leg raising, Hopping, Marching with Arms raising, bending, stretching, flinging, parting, swinging, and combined Leg and Arm exercises.

- (A) The muscles, bones, and other tissues of the legs are strengthened and developed, flat foot corrected, and the hip, knee, and ankle joints improved, thereby aiding the carriage.
- (B) The circulation of the blood is assisted, and agility and endurance cultivated.
- (C) All types of marching are exhilarating, and by reason of the measured step, rhythmic movement, and necessity for covering and dressing, co-ordination, co-operation, and discipline are fostered.

Marching is placed after jumping and vaulting to tone the body down somewhat prior to taking violent exercises, such as running and games.

Running is usually understood as doubling at about 180 steps per minute, but it is obvious that spring and distance running are of quite a different nature, so that these three headings have been adopted in this group.

Doubling has as its object the working of large masses of muscles, and training the respiratory organs to accommodate themselves to the extra pressure which arises. Sprinting, however, involves intense effort from start to finish, so much so, that at the end of a given course it is practically impossible to have crowded in more energy, or to proceed more than a few yards farther at the same pace. Getting off the mark alone entails tremendous nervous expenditure, as almost everything depends upon it, and this same strain is present throughout. Breathlessness invariably follows sprinting.

Distance running differs entirely from the foregoing in that it is necessary to conserve energy and apportion it out by degrees. The start matters little, but if too much is put in at any stage it is fatal to the whole course being finished in an advantageous manual

(A), (B), (C). The effects under these headings are practically the same as for jumping and vaulting, except that speed and endurance are cultivated in addition.

Running is another form of massive movement appropriate at this stage in the table. It is always followed by marching to give a toning-down effect.

Games are subdivided as follows:

Running and Jumping. Ball.
Contest.

For full details of these see special chapter.

- (A) The structural effects will vary according to the game chosen.
- (B) A general improvement in the circulatory, respiratory, digestive, and excretory powers, and the development of agility speed, and endurance, are features of this group.
- (C) Games are greatly (C) i' ...... and require alertness to act quickly, co-operation when playing for a side, judgment and co-ordination to do the right thing at the right time, confidence in personal powers, courage to engage with an opponent if necessary, and control in order to keep cool and collected. The several demands made upon players inculcate esprit-de-corps and character.

Finishing exercises am at returning the body to its normal condition after the general table of exercises has been performed. They consist of light movements selected to ease the blood pressure and breathing, also to leave the body finally in a position of good carriage. Foot placings, Heels raising, light Arm movements, easy dorsal and lateral Trunk exercises may be inserted, but only about one-twelfth of the time allotted for the lesson should be so taken up. In some cases there may be time only for about two movements, in which circumstances a light feg plus a dorsal exercise are the most suitable.

- (A) The developmental effects are of secondary importance, but correction and improvement of carriage are special considerations.
- (B) The restoration of normal circulation and breathing constitute the main physiological aims.
- (C) All exercises are directed toward inducing mental repose.

Breathing Exercises.—Breathing exercises are sometimes assigned a special group, but all exercises influence the breathing, and any signs of holding the breath should be speedily corrected. Inasmuch, however, that certain movements tend to restrict free breathing, while others aid the normal action of the lungs, special breathing exercises may be inserted at any point in the table.

Subdivided they are placed as follows:

Breathing with light leg exercises.

```
,, ,, arm ,,
,, head ,,
,, trunk ,,
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The leg exercises embrace heels raising, and heels raising and knees bending from the various starting positions; the arm movements include hand turning, arms raising, parting, and (slow) arms flinging or stretching; the head exercises cover turning and backward and sideways bending; and the trunk movements, sideways bending and turning.

Any minor combinations of these are permissible, providing always that they assist the return of natural breathing.

# FATIGUE, STIFFNESS, BREATHLESSNESS

Fatigue.—As a result of certain forms of exercise, the muscles become fatigued, particularly if a constrained position is maintained, or an exercise is performed demanding a large amount of energy.

Combustion produces waste, and if this is not speedily removed by the blood, the nerves become affected and fail to pass impulses freely from the brain to the muscles. This disturbance demands rest so as to afford the blood an opportunity to deal with the irritating substances and for the nerves to recuperate. Such a condition is known as *local* fatigue, and a brief respite is usually sufficient to enable activity to be resumed.

To a certain stage the will is the deciding factor as to how far fatigue may be carried, but if the circumstances are averse to its dictates, a further attempt may be made to continue the struggle. Intervention finally ensues by the impurities completely observing the passage of impulses along the nerves, and what is termed absolute fatigue prevails. This is a much more serious condition than "local" fatigue, and requires a long period of rest to recover.

Fright, fear, or other exceptional circumstances have varying effects on the nervous system, and may facilitate or retard the progress of fatigue. Movements requiring considerable brain activity are those which most speedily give rise to it.

Stiffness.—The phenomenon of stiffness is unlike fatigue in that it does not make its appearance until some time after exercise has been taken. A strenuous game may be played, or some violent form of exercise indulged in without any inconvenience being suffered at the time, although twelve hours or so later the painful sensation of stiffness will be experienced.

It is quite a common occurrence after taking up a par-

ticular type of exercise which is out of the ordinary, or has been left untouched for some time. A footballer playing his first game of the season, unless he has had some special training beforehand, invariably experiences stiffness for a few days following the game.

In this case the disintegration of the tissues during exercise gives rise to a quantity of waste products. Absence of training will cause these impurities to be in excess, and the blood fails to dispose of them without delay. The theory is that the urates remain in solution for some time, but with the cooling of the body they form a sediment in the joints and tissues, which has an irritating effect. Apart from the soreness, while the muscles are so impregnated they lose much of their power.

Having once disposed of the superfluous substances which produced the abundance of waste, similar exercise may be taken without ill-effect.

Breathlessness.—Combustion takes place in proportion to the amount of work performed, and when large groups of muscles are brought into action for any length of time, as in running or violent movements of a like type, there is an excess of carbonic acid gas absorbed by the blood.

To cope with this, the heart increases its action, and more blood is pumped to the lungs. The latter organs correspondingly accelerate their rate, until with the rising pressure the inhalations and exhalations become more and more laboured, and the breathing resembles a series of gasps. Several events contribute to this difficulty. Firstly, the surplus quantity of carbonic acid gas demands an additional action on the part of the heart and lungs. Secondly, the increased blood pressure causes dilation of the blood vessels in the lungs. Thirdly, heart and lungs become fatigued under the strain to which they are submitted.

From this it will be seen that the air-cell space is encroached upon at a time when more air capacity would be helpful. The resulting congestion is somewhat relieved by the lifting of the ribs and flattening of the diaphragm, as in inspiration, but it becomes more acute with the reaction during expiration, and before a full exchange between the carbonic acid gas and oxygen has been permitted the air is again forced out.

Relief is afforded by the cessation of action, or by what are termed "deflective leg exercises," such as heels raising, or heels raising and knees bending performed moderately slow. These exercises tend to hold the blood in check in the legs, and so lessen the congestion in the thoracic organs.

Suitable training will minimise the liability to breathlessness, as it will reduce the production of carbonic acid gas, and educate the respiratory organs to accommodate themselves to increased demands, without succumbing to excitement and developing a spasmodic action.

## PROGRESSION

I T is clear from the laws of nature that life is progressive from its inception to its termination, and the development of mind and body proceed in such gradual stages that it is almost impossible to discern any particular period when a notable change takes place. It is, therefore, only reasonable that any scheme for improving health and development should be in accord with the general principles which nature has indicated. This direction has undoubtedly been followed by educationists in every sphere of life.

It has been described previously how exercise influences the structures and functions of the body to a greater or lesser degree in proportion to the strength of a movement, and how the laws of mechanics are so bound up in anatomy and physiology that it is essential to consider them all in conjunction if an estimate is to be formed of the relative strengths and effects of different movements. Further, psychology is destined to play an important part in any rules which may be elaborated to govern the course along which physical training is to advance.

It would not be practicable to plan out correctly a rota of exercises with a specified period for their application through various stages of life, as it is apparent that the rate of progression will depend entirely on the physical and mental ability, also the time devoted to the subject.

The earliest forms of physical training consist of very general types of movements, such as are made by a child from birth up to the age of seven. At this age definite exercises may be taught and gradually advanced, so as to demand more effort, endurance, and mental activity, thereby increasing strength and developing co-ordination. Having acquired these attributes, they may be utilised in a variety of ways, and the training continued in a general manner.

This might be likened to a child going to school. Its education has already reached a certain stage along general lines, but special subjects, such as reading, writing, arithmetic, are then taught and developed in a definite way. From the educational standpoint these are merely pillars upon which the real mental activity is built. At the end of several years it is considered that a sufficient store of knowledge has been obtained from which the student may draw according to the demand of business or other conditions, and another phase of life is entered upon.

It is most unusual to utilise the school subjects in exactly the same form as they have been learned, and it may be that some of them drop out of the after-school career. Nevertheless, what really establishes the value of education is the calling up of knowledge and combining portions of specific subjects to formulate new ideas. This faculty of associating and readily applying facts being more prominent in some persons than in others, intelligence is measured accordingly. In a similar manner definite physical exercise would lose the major part of its value if it commenced and ended in the stereotyped movements which are contained in physical training textbooks, notwithstanding the almost exhaustive number of exercises laid down. These only form the fundamentals from which are drawn the elements for any complex movements desired, the blending being more or less difficult in proportion to the physical training or physical education preceding it. Considerable harm may result in any attempt to hurry the advance beyond the capabilities of students, apart from the discouragement invariably arising from inability to perform an exercise satisfactorily. The principle followed will, however, be the same throughout, namely, working from general to special, and special to general.

Some of the methods employed to put this scheme into practice are as follows:

- I. Making a slow movement quick.
- a. Making a quick movement slow.
- 3. Changing the starting position.
- 4. Changing the type of movement.

- 5. Increasing the weight of leverage.
- 6. Holding an exercise.
- 7. Increasing the height of the apparatus.
- 8. Decreasing the height of the apparatus.
- 9. Reducing the base.
- 10. Combining movements.
- II. Increasing mental activity.
- 12. Repetition of exercises.
- 13. Changing from excentric to concentric.
- 14. Working from unilateral to symmetrical to unsymmetrical bilateral.
- 15. Raising the centre of gravity.
- 16. Working from free standing exercises to exercises with apparatus.

These examples may be used scparately or in conjunction with each other. In some cases two, three, or even more may be found in working from one exercise to another. Instances showing the employment of these methods are:

- I. Standing; Trunk turning and Trunk bending.—When these exercises are taken slowly, control is maintained more easily than when performed quickly. Further, correct execution and precision are secured more readily in the former than the latter.
- 2. Standing; Heels raising and Knees bending.—In this case the force of gravity aids a quick bending of the hip, knee, and ankle joints, the extensors of which are brought into action excentrically. When the movement is taken slowly, the muscles in question are required to maintain a continuous check of the bodily weight demanding a perpetual series of nervous impulses, thereby calling for greater control than when performed quickly.
- 3. Standing; Trunk turning, to Walk (b) Standing; Trunk turning.—In the ordinary standing position the pelvis and the thighs are free to participate to some extent in the movement. This is largely changed when one foot is placed forward, as the pelvis becomes locked and the movement confined more above the hips, reducing its range considerably, and making execution

more difficult. Further, the muscular action is increased in the direction of the rear leg.

- 4. Fall Hanging, to Over-grip Hanging.—In each of these exercises the muscles of the arms, shoulders, chest, and back are brought into action, but in different ways, involving distinct co-ordinations. Moreover, in one instance the weight of the body is taken partly by the arms and partly by the legs, while in the other it is taken solely by the arms.
- 5. Bend Forward Lying to Stretch Forward Lying.—When this exercise is executed across a bench, the hamstrings, erectors of the spine, and muscles of the dorsal region are brought strongly into contraction to prevent the body bending from the hips, and the spine from rounding forward. A series of lever actions are entailed, and when the arms are stretched the leverage is lengthened, and the weight to be supported considerably increased.
- 6. Over-grip (b) Hanging.—The holding of this exercise demands continuous nervous stimulus, and by reason of the whole weight being suspended with arms bent, nothing short of a strong effort will maintain the position. It will, in fact, be found impossible to hold it for any length of time, as the law of fatigue will assert its influence. This law is the prevailing factor to be contended with when making progression by holding an exercise. To counteract monotony, Head turning is usually inserted.
- 7. Standing; Balance Marching.—In this particular exercise nervous forces exert their influence immediately the apparatus is raised from the level of the ground, and a balance easily performed on a beam I foot from the ground will be found much more difficult when the beam is raised 6 feet.
- 8. Span Bend.—This exercise taken at a stretch height will be found much easier than when taken at shoulder height, as the distance to be spanned between the feet and the hands is decreased, and demands a greater arching of the trunk.
- 9. Standing to  $\frac{1}{2}$  Crook (a) Standing.—The standing position of itself requires a certain amount of balance, especially with young children, but after a while this becomes easy and ceases to have much balance effect. To intensify this effect, therefore, the base is reduced by raising one knee and throwing

the weight on the other foot, thereby altering the equilibrium of the body.

- with Arm stretching.—The arm stretching exercise may be advanced in two or three ways, but by combining it with foot placing concentration is demanded on the two parts of the body at one time, so that the foot is moved on the proper count and correct rhythm maintained.
- II. Working from word of command, to numbers, to judging the time.—Foot outward placing is executed to the command, "Left foot outward—place!" and with the caution the mind is centred on the left foot, which is immediately put in action on the word "place!" Following this, progression is made by taking the exercise to numbers, and the command given is, "Foot placing outwards left and right by numbers!" This necessitates linking up the placing of the left and right foot with numbers 1, 2, 3, and 4, and more nervous energy is expended on the exercise. It is still further advanced by judging the time, as to the command, "Foot placing outward (judging the time) left and right foot—place!" In this case not only must attention be given to the placing of the feet in the direction named, without the aid of numbers, but the rhythm has to be gauged.
- 12. Plumb Hanging; Arms bending.—This exercise has been selected in consequence of its strong muscular action, and repetition of same calls for the expenditure of so much energy that the law of fatigue asserts itself very speeduly. The same applies to other exercises in ratio to the effort required in their performance.
- 13. Back Lying; Leg lowering to Leg raising.—From the back lying the knees are drawn up and stretched forward, then lowered. The lowering is carried out by the iliacus, psoas magnus, etc., muscles working excentrically. In this way gravity assists the action, and the muscles working through their length apply a brake, as it were, on the action. In raising the leg, however, the weight of the limb has to be lifted against gravity by concentric action of the muscles referred to. The latter action is considerably more powerful than the former.
  - 14. Standing; (1) One Arm stretching, to (2) Two. Arms

- stretching; to (3) ½ Reach and ½ Stretch; Arms changing.—In one arm stretching the whole of the mind is concentrated upon the single movement, whereas the attention is divided in the single movement, whereas the attention is divided in the single movement. In unsymmetrical bilateral exercises the two sides of the brain are called upon to act independently in order to move the arms in different directions. This is not in accordance with theories hitherto expounded, but practical application favours the above ruling in the majority of cases. There are exceptions where symmetrical movements are easier than unilateral.
- 15. Balance Standing; Forward Marching, to Stretch Balance Standing; Forward Marching.—The higher the centre of gravity is raised the greater becomes the difficulty experienced in maintaining the balance, as the slightest deviation from the centre tends to upset the equilibrium. This will readily be understood by cutting off a small section, say I inch, from a stick, and placing it on the ground, as compared with balancing a piece of the same stick, say, 2 feet long.
- 16. Bend Standing; Arm Stretching, to Over-grip Hanging Arm bending and stretching.—In arm bending and stretching the muscles of the arms, shoulders, chest, and back are brought into play, the insertions being active, but the movement is distinctly limited. In hanging and arm bending and stretching the whole bodily weight is lifted and lowered by the same sets of muscles, except that the origin is working instead of the insertion, and a much stronger effort is necessary.

# TERMINOLOGY

I is impossible to enumerate all the movements which the body is capable of making, even so far as recognised exercises in physical training are concerned. Further, some appear so complex that a definition seems impracticable, and yet it is obvious that for purposes of education suitable terms must be applicable to any given movement or position which will convey clearly what is intended.

The compound and complicated always involve the simple; therefore, if the last-named can be set out, the elements are supplied upon which to base a complete terminology.

Upon examination it will be found that the head, arms, hands, legs, feet, and trunk can be moved in certain directions when the body is in the fundamental position of standing, lying, sitting, kneeling, hanging, or supported by resting on the arms. Any such movement—unless the original position is returned to—leads to a derived position. The actual operation from the "fundamental" to the "derived" position is the path of movement.

Having assumed one position, further exercises may be carried out, and in this event the position immediately preceding the last movement is known as the *starting* position.

It is frequently necessary to indicate the "fundamental" or "derived" position in relation to a given piece of apparatus, e.g., Between Standing; Ride Sitting; Forward Lying. In view of this, certain special positions are detailed hereafter, together with simple movements and the derived positions reached.

Some combinations of exercises demand that the separate movements be shown, together with each derived position. For instance (parallel bars), "Between Rest, forward and backward swing to Front Leaning Rest, forward swing with left

leg right circle over right bar, forward and backward swing and left Horizontal Front Vault."

When writing exercises, the following method should be adopted.

(I)	Describe the	position of the	arms	in the
(2)	,,	,,	legs or feet	"Starting"
(3)	,,	,,	trunk	position.
(4)	,,	fundamental p		j position.
(5)	"	last movement	made.	

Abbreviated this would read:  $\frac{1}{2}$  Bd  $\frac{1}{2}$  Wg, Wlk (b), Tn Sd Bd, St; As upw str. Nos. 1, 2, or 3 may, or may not, be involved in the "starting" position, but No. 4 always comes in, and if alone the exercise would read: Standing: Arms

It should be noted that all "positions" and parts of body begin with capital letters, and that movements are dealt with (I) in relation to the part of the body moved, (2) the direction of the movement, and (3) the type of the movement.

In making an analysis of an exercise the procedure will be—

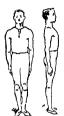
- (I) Note the last movement made.
- (2) Note the starting position.

# SPECIAL POSITIONS

#### STANDING

#### Standing "Attention."

In this position the feet are at an angle of approximately 60°, the heels together, knees straight, hips and abdomen drawn in, chest arched forward, shoulders moderately back and down, arms, wrists, and fingers stretched, without stiffness, chin in, and head erect.



Figs. 1 and 2



Fig. 6.

## Toward Inside Standing.

Between the bars with shoulders parallel to length of same.

#### Toward Standing.

The body is facing the apparatus. At horse or parallel bars the word "end" or "side" may be placed in parenthesis to denote the position



F1g. 3.



Fig. 7.

Between Standing.

Between the bars with shoulders at right angles to length of same.

# Side Toward Standing. The side of the body is toward the apparatus.

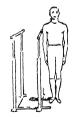


Fig. 4.



Fig. 8.

#### High Standing.

Standing position taken some distance above the ground level

# Back Toward Standing. The back is toward the apparatus.



Fig. 5.



Fig. 9.

Toward High Standing

ground level.

## STANDING-(continued)

#### Bakince Standing.

The body poised on a limited base with shoulders at right angles to length of apparatus.



Fig. 10.



Balance Side Standing.

The body poised on a limited base with shoulders parallel to length of apparatus.

#### SITTING

#### Sitting.

Sitting on the ground with legs straight, or on a piece-of apparatus with shoulders at right angles to length of same. On parallel bars the legs may be "inside" or "outside,"



Fig. 12.



Fig. 15.

## Crook (a) Side Sitting.

Sitting position with knees bent at right angles and shoulders parallel with length of apparatus.



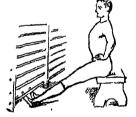
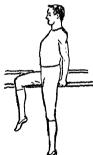


Fig. 13.



## 1 Crook (a) Sitting.

Sitting on apparatus with shoulders at right angles to length of same, and one knee bent. On parallel bars the legs may be "inside" or " outside.



## Side Sitting.

Sitting on apparatus with shoulders parallel with length of same, and legs straight.



Fig. 14.



Fig. 17.

Ride } Crook (a) Side Sitting.

Sitting astride apparatus with shoulders parallel with length of same, and forward knee bent.

## SITTING-(continued)



Sitting astride apparatus with shoulders at right angles to same, and legs straight



Fig. 18



Fig. 19.

Ride Side Sitting.

Sitting astrole approxime with shoulders parallel with length of same, and legs straight.

#### LYING

Forward Lying.

Lying face downward on ground or piece of apparatus.



Fig. 20.



Fig. 21.

Backward Lying.

Lying on the back on ground or piece of apparatus.

## KNEELING

#### Kneeling.

The weight of the body taken on both knees.



Fig. 22.



Fig. 24.

## 1 Kneeling.

The weight of the body taken on one knee, the other leg being bent at right angles at the knee and the foot flat on the ground.

## Stride Kneeling.

The weight of the body taken on both knees, which are separated about 12 mehes.



Fig. 23.



Fig. 25.

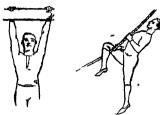
Spurn (b) Foot Support & Kneeling.

The weight of the body taken on one knee, the other leg being extended sideways with the foot on the ground

#### HANGING

#### Over-grip Hanging.

The Sody suspended in a vertical position by the arms, with the hands in the over-grip.



## Oblique Upward Hanging.

The body suspended by the arms from an oblique rope or beam, with the head upward and one leg passed over the apparatus.



Fig. 31.

## Under-grip Hanging.

The body suspended in a vertical position by the arms, with the hands in under-grip.



#### Oblique Downward Hanging.

The body suspended by the arms from an obeque rope or beam, with the head downward and one leg passed over the apparatus.

Fig. 27.



## Alternate-grip Hanging.

The body suspended in a vertical position by the arms, with the hands in alternate-grip.

Upper Arm Hanging.

The body suspended in a

vertical position on the upper



Fig. 28.



Fig. 33.

#### Horizontal Hanging.

The body suspended in a horizontal position by the arms, with one leg over the apparatus.



Fig. 29.



#### Fall Hanging.

The body suspended in an inclined position by the arms, with the feet in front resting on the ground. The body and arms form an angle of approximately 90°.

# 1 Hanging.

arms.

The body suspended by one arm. (Usually taken in conjunction with another position of the other arm.)

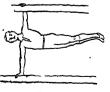


Fig. 30,

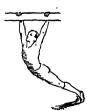


Fig. 35.

## Arch Hanging.

The body suspended in an arched position by the arms, with the feet behind resting on the ground.

#### RESTING

#### Front Rest.

The weight of the body taken on the aims, with the front of the thighs resting against the apparatus.



Fig. 36.



Fig. 40.

## Front Leaning Thigh Rest.

The weight of the body, in a forward leaning position, taken on the arms, with the thighs resting on the apparatus.

#### Back Rest.

The weight of the body taken on the arms, with the back of the thighs resting against the apparatus.



Fig. 37.

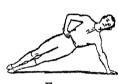


Fig. 41.

## Side Leaning Rest

The weight of the body taken on one arm, with the feet on the ground (or apparatus) and side of body towards same.

#### Between Rest.

The weight of the body taken on the arms between parallel bars, and the axis of shoulders at right angles to the length of bars.

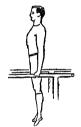


Fig. 38.



Fig. 42.

## Riding Rest.

The weight of the body taken on the arms, with the legs astilde apparatus and axis of shoulders at right angles to length of same.

## Front Leaning Rest.

The weight of the body taken on the arms, with the feet on ground (or apparatus) and body facing same.



Fig. 39.



#### Side Riding Rest.

The weight of the body taken on the arms, with the legs astride apparatus and axis of shoulders parallel to length of same.



## SIMPLE MOVEMENTS AND DERIVED POSITIONS



Fig. 44.

Hips—firm!
'Wing Standing."



Fig. 45.
Arms—bend!
"Bend Standing."



Fig. 46.

Arms forward—bend!

"Yard (b) Standing."



Fig. 47
Neck—rest!
"Rest Standing."



Fig. 48.

Arms forward—stretch!

"Reach Standing."



Arms sideways—stretch ' Yard Standing."



Hands upward—turn!
"Yard (c) Standing."



Fig. 51.
Hands—close!
"Yard Grip Standing."



Fig. 52.

Arms upward—stretch!

"Stretch Standing."



Fig. 53.

Arms backward—stretch!

"Drag Standing."



Fig. 54.

Knee forward—bend!

"2 Crook (a) Standing."

## TERMINOLOGY



Fig. 55. Knee forward Foot supportplace! " L Crook (a) Foot Support



Fig. 58. Knees full-bend!



Fig. 61. Sideways-lunge! "Lunge (c) Standing."



Fig. 64. Foot backward in Toe Lunge-place! "Toe Lunge Standing."



Fig. 56. Knee backward-bend! "4 Crook (b) Standing."



Fig. 59. Forward-lunge! "Lunge (a) Standing."



Fig. 62. Oblique backward—lunge! "Lunge (b) Standing."



Leg backward raise and Trunk forward—bend! "Horizontal (a) 1 Standing."



Fig. 57. Knees-bend! "Spring (a) Standing.



Fig. 60. Oblique forward-lunge ! "Lunge (b) Standing."



Fig. 63. Backward-lunge! "Lunge (e) Standing."



Fig. 66. Knee bend Leg backward raise and Trunk forward—bend! " Houzontal (b) Standing."

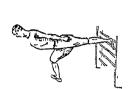


Fig. 67.

Instep support forward lunge! "Horizonta! (%) Instep Support ½ Standarg."



Fig. 68.

Leg sideways raise and Trunk sideways—bend!
"Horizontal (c) ½ Standing."



Fig. 69.

Leg forward—raise '
'' ½ Spurn (a) Standing."



Fig. 70.

Leg forward Foot support
—place!
"1 Spurn (a) Foot Support
Standing."



Fig. 71.

Leg sideways—raise!
"½ Spurn (b) Standing."



Fig. 72.

Leg sideways Foot support—place! "½ Spurn (b) Foot Support Standing."



Fig. 73

Leg backward—raise!
"½ Spurn (c) Standing"



Fig. 74.

Feet—close!
"Close Standing"



Fig. 75.

Feet full—open !;
"Wide Standing."

## TERMINOLOGY



Foot forward—place! "Walk (a) Standing."



Fig. 77.

Foot obliquely forward—
place!
"Walk (b) Standing."



Fig. 78.

Foot sideways—place!
"Walk (c) Standing."



Foot obliquely backward—place!
"Walk (d) Standing"



Fig. 80.
Foot backwaid—place!
"Walk (e) Standing"



Fig. 81.

Heels—raise!
"Toe Standing."



Fig. 82.

Foot forward in Toe support—place!

"Toe Support (a) Standing."



Fig. 83.

Foot obliquely forward in Toe support—place! "Toe Support (A) Standing."



Fig. 84.

Foot sideways in Toe support—place! "Toe Support (c) Standing."



Fig. 85.

Foot obliquely backward in Toe support—place! "Toe Support (d) Standing."



~Fig. 86.

Foot backward in Toe support
—place!
"Toe Support (e) Standing."



Fig. 87.

Trunk backward—bend!
"Arch Standing."



Fig. 88.

Trunk backward bend . . . fall—grasp!
"Span Bend Standing."



Fig. 89.

Trunk backward—fall '
"Fall Sitting."



Fig. 90.

Trunk for ward—bend! "Stoop (a) Standing."



Fig. 91.

Trunk forward and downward—bend! "Stoop (b) Standing."



F-g 92.

Trunk sideways—bend!
"Side Bend Standing"



Fig 93.

Trunk sideways—fall! "Side Fall Standing"



Fig. 94.

Trunk—turn!
"Turn Standing."

## **ABBREVIATIONS**

The following abbreviations are acouled for expressing the terminology in writing tables of exercises:

	<b>e.</b>		
	$\mathbf{A}$	1	F
A Abd Abt Acr aft alt Ank Ar As asst	Arm. Abdominal. About. Across. After. Alternate. Ankle Arch. Arms. Assistance.	F f b Fe Fig Fin fl fl Flex flg forw	Foot, Feet. Followed by. Feint. Figure. Finishing. Fall. Falling. Flexion. Flinging. Forward. Front.
	В	f op	Full opening.
Bal Bch Bd bd Beh Betw Bk bkw Bm	Balance. Bench. Bend. Bending. Behind. Between. Back. Backward. Beam.  C Change. Circle, Circling. Close. Closing. Climbing.	Gp Gsp H H.B. Hd hdl H f Hg H1 H.L. Hls	G Grip. Grasp.  H Half. Horse. Horizontal Bar. Head. Hurdling. Hips firm. Hang, Hanging. High. Horizontal Ladder. Heels.
Cr Crk	Cross. Crook.	Hns Hor	Hands. Horizontal.
	D	Hve	Heave.
D B DbI Dg Di dnw Dor Dp dsmt	Deep breathing Double. Drag. Diamond. Downward. Dorsal. Deep. Dismount.	incl Insd Intro Inw Istp	I Incline. Inside. Introductory. Inward. Instep.
	E	Jр	Jump.
Elb Ex	Elbow. Exercises.	JP J.R.	Jumping. Jumping.

	K	1	S
Kn Kns	Knee, Kneeling. Knees.	S.B. Scr	Slow, Slowly. Span Bend. Screw.
l L Lat Lge Ige Lıv Ln Lng Iow Ly	L Left. Leg. Lateral. Lunge. Lunging Living. Leaning. Long Lowering. Lying. Lying.	Sects Sd sdw Shd shr Sitt Spg Spn Sq St Std Stp Str str Sup	Sections. Side. Sideways. Shoulder. Shear. Sitting. Spring. Spurn. Square. Standing Stride. Stoop. Stretch. Stretching. Support.
Mch Mk tm	Marching. Mark time.	swg	Swing, Swinging.
Mt	Mount, Mounting.		T
Obl op O.R. Ov Outsd	O Oblique. Opening. Oblique Rope. Over. Outside.	Th Th Tow trav Tri Tw	Three-quarters. Trunk. Thigh. Turn. Toward. Travelling. Triple. Twisted.
			υ
part P B pl	P Parting Parallel Bars. Placing	Un Up Upw	Under. Upper. Upward.
P.R. Prep	Parallel Ropes. Prepare.	V vert V.R.	V Vault. Vertical Vertical Rope.
•	Q		w
₫ q	Quarter. Quickly. R	w war W.B. Wd	With. With a run. Wall Bars. Wide.
r R rais Rch Rıd	Right. Rings Raising. Reach. Ride, Riding.	Wd Wg wh W.L. Wlk Wr	Wing. Wing. Wheel, Wheeling. Window Ladder. Walk. Wrist.
rl rot Rst	Roll. Rotary, Rotating. Rest.	Yd	Y Yard.

<sup>\*</sup> Exercises suitable for boys or men only.

# ORDER MOVEMENTS

WHEN firstly taking over a class, whether beginners or otherwise, it is the Instructor's duty to assemble the members, number them, record attendances, and prepare them for the prescribed training. The methods vary with different teachers for carrying this out, but whatever system is adopted it should aim at securing the keenest attention, discipline, and smartness. Order movements are, in fact, intended to pave the way for a lesson by demanding concentration, unquestioning obedience, and alertness of action.

Exercise.—Falling in.

Command.—Class fall in ! . . .

Remarks.—Assuming that the students are gathered together in a given area before class work has started, a whistle or the command "Class!" will usually attract their attention. Such a signal should be made to embrace immediate silence and perfect stillness wherever the pupils happen to be. At "fall-in" every one should run to the place indicated, and take up position according to in-"Falling in" will depend upon what structions. arrangements it is proposed to adopt in class work, the numbers present, and the space available. Generally this will involve the formation of single or double ranks, and by placing one student in position to act as a left (right) marker the desired alignment will ensue at the command, "On the left (right) marker, in single (double) rank—fall-in!" The whole of the remaining students will run and line up accordingly, pick up their dressing, and stand at ease. A left (right) marker will be the extreme student on the named flank when the rank is completed, and if there are two ranks the marker will be in the front, while the rear rank will take up position two

paces in the rear of the front rank and dress off from the same flank as the named marker. In order to secure uniformity, the shortest students should either be on one flank, so that the line graduates up or down, or they should be in the centre. For purposes of facilitating class work it is advisable to place the short students where they can see and be seen, and when facing a flank so that they will be in front. In this case the command for falling in will be extended to "On the left (right) marker (who will be chosen according to size), in single (double) rank, shortest on the left (right)—fall in!"

Exercise.—Dressing.

Command.—By the right (left)—dress! . . .

Remarks.—Having fallen in, a class picks up its dressing on the marker by touching up lightly, and taking as the point of alignment the chin of the second student beyond on the named flank. There should be sufficient room laterally to move the arms forward and backward freely, and in picking up the line the head should be held erect. On being satisfied that the correct position has been obtained, the head should be turned forward, and the "stand at ease" position assumed.

Exercise —Standing at ease

Command —Stand at—ease! . . .

Remarks.—This is a very definite attitude, and should not be confused in any way with "standing easy." The feet should be separated one foot-length between the heels by carrying the left foot off or by jumping astride, knees pressed back, hips and abdomen drawn in, shoulders moderately down and back, arms stretched behind and thumbs locked, chest up, chin in, and head erect.



Fig. 95.

Exercise.—Standing easy.

Command.—Stand—easy! . . .

Remarks.—From "attention" or "stand at ease," "Stand—easy!" means that the arms may be moved, the tension taken off the body, and, if necessary, the left foot shifted.

In general it includes any easy position, or permits of any movement which a student desires to make without the right foot leaving its place—the object of keeping the right foot in position being to maintain the alignment when the class is called up again. While too frequent use of this command is inadvisable, its application occasionally is imperative to relieve nervous tension and prevent fidgeting.

Exercise.—Attention.

Command.—Class—attention! . . .

Remarks.—After falling in, taking up dressing, and standing at ease, the class is called up to "attention." The left foot is closed smartly to the right, or the feet brought into position with a slight jump, heels together, feet apart at an angle of about 60 degrees. arms hanging at sides, palms of hands against thighs, thumb and fingers together,

knees pressed back, hips and abdomen drawn in, shoulders moderately down and back, chest up, chin in, and head erect.

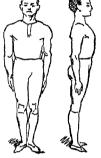


Fig. 96.

Exercise.—Numbering.

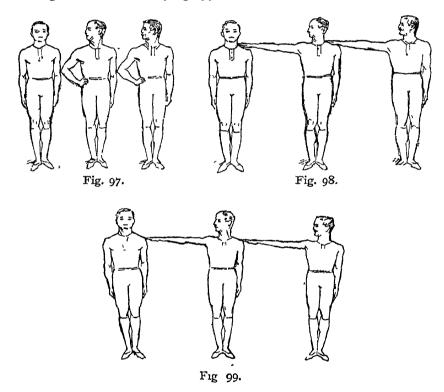
Command.—Class—number! . . .

Remarks.—At the command "Class-number!" the right flank student calls out "one!" the next "two!" and so on. When there are two ranks, the rear rank, covering off the front rank, takes the same number. Should the circumstances require any special arrangement, the numbering may be in twos, threes, fours, etc. etc., especially if it is desired to form sections with a certain number in each section. During the numbering the head should be maintained erect, and eyes directed straight to the front.

Exercise.—Dressing with intervals.

Command — From the left (right), half (three-quarter) (full) (double) interval—dress! . . .

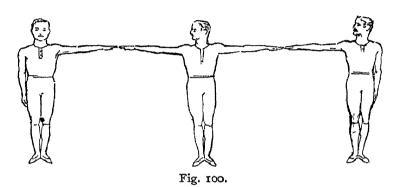
Remarks — At "From the left (right), half interval—dress!" the left (right) flank student stands firm and the remainder ease off to the right (left), at the same time placing the left (right) hand on the hip until the left (right) elbow lightly touches the arm of the student next on the left (right). The head and eyes are turned to the left (right) flank, and the alignment corrected. When in position the command "Eyes—front!" is given, and the head and eyes are turned forward, the arm being simultaneously brought to the side (Fig. 97).



- "From the left (right), three-quarter interval—dress!" is carried out in a similar manner, except that the arm is raised sideways instead of the hand being placed on the hip, and the dressing taken with the finger-tips touching the neck of the next student on the left (right) (Fig. 98).
- "From the left (right), full interval—dress!" is also on the same basis, except that the finger-tips of the raised arm are touching the shoulder (Fig. 99).

"From the left (right) double interval—dress!" differs only in that both arms are raised (inside arms of flank pupils) until finger-tips are touching finger-tips (Fig. 100).

When in two or more ranks, only the front rank students raise their arms, the rear or remaining ranks covering.



Exercise.—Opening ranks or files.

Command.—Open ranks (files)—march! . . .

Remarks.—To open in two from single rank or file:

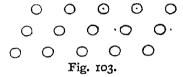
(1) A single rank is opened into twos by odd numbers taking one pace forward, and even numbers one pace backward, or by either number taking two paces forward (backward). (See Fig. 101.)



- (2) A single file is opened by taking paces sideways to the left and right. "To the right (left) open file—march!" means that the rank turns right (left) and opens out. (See Fig. 101.)
- (3) A rank may be opened to the right (left) by even numbers taking one pace to the rear and a pace sideways to the right, both ranks then turn right (left) into file, and take one pace outwards. (See Fig. 102.)

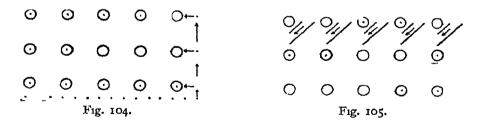
To open in threes:

- (1) After numbering in threes, numbers one take two paces forward, numbers two mark time three beats, and numbers three take two paces backward.
- (2) A similar formation to No. 1 is reached when in file if ones and threes take paces sideways to left and right



respectively, and twos mark time four beats. (See Fig. 103.)

(3) A file on the march may be opened by filing to the left (right), No. I marching six paces forward, No. 2 four paces forward, No. 3 two paces forward, all turning to the left (right) together, and marching forward in line into position. The remainder of the file follows, each three turning on the same spot. When in position all mark time until "Halt!" is given, and the centre file (Nos 2) then takes one pace backward. (See Fig. 104.)



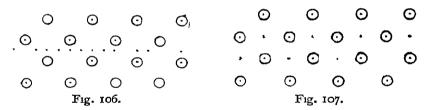
- A variation is furnished by each rank of three raising arms to half, full, or double interval when marching in line on to place, all coming to attention at "Halt!"
- (4) A file on the march may form line on the left (right) with sections of threes, and then extend to half, full, or double interval. (See Fig. 105.)

To open in fours:

- (I) After numbering the rank in fours even numbers take one pace backwards and one pace to the right, so that two ranks are formed. The front rank then takes one pace forward, and rear rank one pace backward. Finally Nos. I and 2 take one pace forward, and Nos 3 and 4 a pace backward. (See Fig. 106.)
- (2) A file may be opened to a similar formation as No. 1 by changing the direction of the paces.
- (3) See method No. 3 for opening in threes.
- (4) See method No. 4 for opening in threes.

To open in fours from double rank or double file:

- (I) After numbering, odd numbers of front rank take one (two) pace (paces), and even numbers of rear rank one (two) pace (paces) backward.
- (2) Front rank take one pace forward, rear rank one pace backward, odd numbers one pace forward, and even numbers one pace backward. (See Fig. 107.)



- (3) A similar formation to No. 2 is derived from double file by taking paces sideways to left and right.
- N.B.—By combining the various methods with marching formations and tactics, progression is supplied and interest added to a lesson.

## TURNING

Exercise.—Left (right) Turning.

Command.—Left (right)—turn! . . .

Remarks.—It is advisable to take turns by numbers until correct performance is secured. At "one!" the turn is made on the left (right) heel and right (left) toe, and at

"two!" the right (left) heel is brought smartly to the left (right) heel.

Exercise.—Left (right) about Turning...

Command.—Left (right) about—turn! . . .

Remarks.—This turn is made on the same principle as "left (right) turning," except that a half turn is performed instead of a quarter.

Exercise.—Left (right) one-eighth Turning.

Command.—Left (right) one-eighth—turn! . . .

Remarks.—This turn is made on the same principle as "left (right) turning," except that one-eighth of a turn is performed instead of a quarter. The exercise is sometimes named "left (right) incline."

Exercise.—Left (right) three-eighths turning.

Command.—Left (right) three-eighths—turn! . . .

Remarks—This turn is made on the same principle as "left (right) turning," except that three-eighths of a turn is made instead of a quarter, i.e., one-eighth short of an "about turn."

## TAKING PACES FORWARD AND SIDEWAYS

Exercise.—Forward (backward) paces.

Command — One (two) pace (paces) forward (backward) — march!...

Remarks.—The left foot is carried forward (backward) a full pace of about 30 inches, the toe touching the ground, and the right foot is then brought to the left, the heel of the latter being simultaneously lowered. The second motion should not be rushed, but an even rhythm maintained.

Exercise.—Side paces.

Command.—One (two) pace (paces) to the left (right)—march!...

Remarks.—The left (right) foot is carried sideways about two foot-lengths, the toe touching the ground, and the right (left) foot is then brought to the left (right), the heel of the latter being simultaneously lowered. The second

motion should not be rushed, but an even rhythm maintained.

N.B.—Not more than four paces forward, backward, or sideways should be taken at one time. If a greater distance is to be covered, the class should be marched into position.

Exercise.—Side and forward paces.

Command.—One pace to the left (right) and one pace forward —march! . . .

Remarks.—The left (right) foot is carried sideways about two foot-lengths, the toe touching the ground, the right (left) foot is carried forward about 30 inches, the toe touching the ground, and the left (right) foot is brought up to the right (left), the heel of the latter being simultaneously lowered. An even rhythm should be maintained with each movement. Backward and side paces follow the same principle.

# EXERCISES

# LEG EXERCISES (PREPARATORY)

## Notes

THE exercises which are described in detail on the following pages are not in strict progressive order. They are simply examples taken from the various progressive lists to explain details of commands, etc.

Methods of progression are those detailed on page 34, and in order to use the summary of exercises it is necessary to apply these methods to the main exercise, when it will be found that each will give numerous changes or combinations, to detail which would entail elaborate lists beyond the scope of these pages.

Taking as an example the summary at the end of "Feet Closing and Opening"—(a) This exercise may be done with the arms in the various positions named, (b) with Head turning and the arms in various positions, (c) combined with numerous Arm exercises, or with Hand turning or Hand closing and opening; (d) combined with Head turning and Arm exercises.

By changing the commands and working to numbers, or judging the time, further progression is provided.

In this minor group alone the number of exercises may be extended approximately to fifty, while in the more important ones upwards of two hundred are easily obtainable.

When requiring to make up combinations of exercises on apparatus the finishing position of one movement will appear elsewhere as a starting position, and indicate further exercises which may be connected up. In this way, voluntary work and progression will be found unlimited.

Foot obliquely forward or obliquely backward placing is usually taken from Wd St.

#### FEET CLOSING AND OPENING

- I. Exercise.—Standing: Feet closing and opening (St: F cl & op).
  - Commands.—Feet—close! . . . Feet—open-! . . .
  - Remarks.—The toes are lifted slightly from the ground and the feet closed by pivoting on the heels (Cl St).
- 2. Exercise.—Yard Standing: Feet closing and opening with Hand and Head turning (Yd St: F cl & op w Hn & Hd tn).
  - Commands.—Arms sideways—raise (stretch)!... Feet closing with hand and head turning left and right by numbers—one!... two!... three!... four!... Arms downward—lower (stretch)!...
  - Remarks.—"Yard Standing" is taken as in Exercise 52. At "one!" the feet are closed, the head turned to the left and the hands turned upward. At "two!" the feet are opened, the head turned forward, and the hands turned downward. At "three!... four!" the feet and hand movements are repeated with head turning to the right and forward.
- 3. Exercise.—Standing: Feet closing and full opening (St: F cl & f op).
  - Commands.—Feet—close!...Feet full—open!... Feet—close!...Feet—open!...
  - Remarks.—Performed as in "Standing: Feet closing and opening," except that the feet are opened to an angle of 90 degrees (Wd St).
- 4. Exercise.—½ Stretch ½ Reach Wide Standing: Feet closing and full opening with alternate Arms upward and forward stretching (½ Str ½ Rch Wd St: Fcl & f op w alt As upw & forw str).
  - Commands. With feet closing and full opening, left (right) arm upward and right (left) arm forward—stretch! . . . With feet closing and full opening, arms change—stretch! . . . With feet closing and opening, arms downward—stretch! . . .

Remarks.—The feet are closed and the arms bent, followed by feet full opening and left (right) arm upward stretching and right (left) arm forward stretching. The feet movements are then repeated simultaneously with the left (right) arm being stretched forward and right (left) arm upward. Feet closing and full opening may also be performed in two counts to the command, "Feet closing and full opening, with arms changing by numbersone! . . . two!"

## Summarv

Method of Progression.—3, 10, 11.

#### FOOT PLACINGS

5. Exercise.—Standing: Foot forward placing (St: F forw pl).

Commands.—Left (right) foot forward—place ! . . . Feet together—place! . . . (Feet change—place!).

Remarks.—The left (right) foot is placed two foot-lengths forward with the heel in line, angle of feet the same as at "attention," and the weight of the body poised evenly on both feet (Wlk (a) St).

6. Exercise.—Wide Standing: Foot obliquely forward placing (Wd St: F obl forw pl).

Commands.—Left (right) foot obliquely forward—place! . . . Feet together—place! . . . (Feet change—place!).

Remarks.—The left (right) foot is placed two foot-lengths obliquely forward in the direction which it points, the angle of the feet being maintained, and the weight of the body evenly distributed over both feet with the shoulders square to the original front (Wlk (b) St). This exercise is always taken from the "Wide Standing," or else the feet opened as the foot placing is performed.

- 7. Exercise.—Standing: Foot sideways placing (St: F saw pl).
  - Commands.—Left (right) foot sideways—place! . . . Feet together—place! . . . (Feet change—place!).
  - Remarks.—The left (right) foot is placed two foot-lengths sideways, the angle of the feet being maintained, and the weight of the body evenly distributed over both feet (Wlk (c) St). This position may also be assumed to the commands, "Feet astride—place! . . . Feet together—place!" by carrying the left foot one foot-length to the left and the right foot one foot-length to the right (Std St). In returning, the left foot is moved one foot-length inward, followed by the right foot.
- 8. Exercise.—Wide Standing Foot obliquely backward placing (Wd St: F obl bkw pl).
  - Commands.—Left (right) foot obliquely backward—place!
    ... Feet together—place!... (Feet change—place!).
  - Remarks.—The left (right) foot is placed two foot-lengths obliquely backward, the angle of the feet being maintained, and the weight of the body evenly distributed over both feet with the shoulders square to the original front (Wlk (d) St). This exercise is always taken from "Wide Standing," or else the feet are opened as the foot placing is performed.
- 9. Exercise.—Standing: Foot backward placing (St: F bkw pl).
  - Commands.—Left (right) foot backward—place! . . . Feet together—place! . . . (Feet change—place!).
  - Remarks.—The left (right) foot is placed two foot-lengths backward with the heel in line, the angle of the feet maintained, and the weight of the body evenly distributed over both feet (Wlk (e) St).
- 10. Exercise.—Yard (b) Wide Standing: Foot obliquely forward placing with Arms flinging (Yd (b) Wd St: F obl forw pl w As flg).
  - Commands.—With feet closing and full opening, arms

forward—bend! . . . Feet left and right obliquely forward placing with arms flinging by numbers—one! . . . two! . . . three! . . . four! . . . With feet closing and opening, arms downward—stretch! . . .

Remarks.—The feet closing and full opening is carried out in two movements, and the arms bent forward on the second motion. At "one!" with the placing obliquely forward of the left (right) foot, the arms are flung sideways. At "two!" with the recovery of the left (right) foot, the arms are bent forward. At "three!" and "four!" these movements are repeated with the right (left) foot. The "attention" position is resumed in two movements by closing the feet and opening them, arms stretching downward accompanying the second motion.

## Summary

Methods of Progression.—3, 10, 11, 15-

F forw (obl forw, sdw, actd, 

## LEG EXERCISES (TRUE)

(HIs raising and HIs raising and Kns bending have also moderate balance effect )

#### HEELS RAISING

- II. Exercise.—Standing Heels raising (St. Hls rais). Commands — Heels—raise! . . . Heels—lower! . . . Remarks.—The heels are kept together and the body lifted as high as possible over the toes, being held vertical throughout (Toe St)
- 12. Exercise.—Reach Standing. Heels raising with alternate Arms upward and downward swinging (Rch St: Hls rais w alt As upw & dnw swg)

- Commands. Arms forward swing! . . . (raise!) (stretch!) . . . With heels raising, alternate arms swinging by numbers, left up, right down—one! . . . two! . . . three! . . . four! . . . Arms downward—swing! . . . (lower!) (stretch!).
- Remarks.—After the starting position has been taken by swinging, raising, or stretching the arms forward, at "one!" the heels are raised, the left arm swung upward and the right arm downward. At "two!" the heels are lowered and the arms swung forward. At "three!" the heels are raised, the left arm swung downward and the right arm upward; and at "four!" the heels are lowered and the arms swung forward again. The arms are then returned to "attention" by swinging, lowering, or stretching them downward.
- 13. Exercise.—Standing: Feet sideways placing and Heels raising with alternate Arms upward and sideways stretching and Head turning (St: F sdw pl & Hls rais w alt As upw & sdw str & Hd tn).
  - Commands.—Left (right) foot sideways and arms—bend!
    ... With heels raising and head left (right) turning, left (right) arm sideways, right (left) arm upward—stretch!... With heels lowering and head forward turning, arms—bend!... Feet change—place!... With heels raising and head right (left) turning, right (left) arm sideways, left (right) arm upward—stretch!... Feet together and arms downward—stretch!...
  - Remarks.—The left (right) foot is placed two foot-lengths sideways, and the arms are bent. As the heels are raised the head is turned and the arms stretched in the named directions. The heels are then lowered and the arms bent, and the foot and arms returned to "attention." The whole exercise may be taken to numbers on the command, "Feet sideways placing and heels raising, with alternate arms upward and sideways stretching by numbers—one! . . . two! . . . three!

## Summary

Methods of Progression.—3, 9, 10, 11, 14, 15.

$$St \begin{cases} As \text{ in Wg Bd Dg} \\ Yd (b) Rst Yd Yd (c) \end{cases} F \text{ in Cl., Wlk} \\ (a, b, c, d, e) \\ or w F pl \end{cases} Hls \text{ rais.}$$

,, ,, w Hd tn. ,, ,, w A ex.

### HEELS RAISING AND KNEES BENDING

- 14. Exercise.—Standing: Heels raising and Knees bending (full bending) (St: Hls rais & Kns bd (f bd)).
  - Commands.—Heels—raise!...Knees—bend! (full—bend!)...Knees—stretch!...Heels—lower!...
  - Remarks.—The heels are raised as in the previous exercise, and the knees bent to an angle of 90 degrees (45 degrees), the body being held erect, the heels together, and the knees forced well apart (Spg (a) (b) St).
- 15. Exercise.—Bend Standing: Heels raising and Knees bending with Arms upward stretching (Bd St: Hls rais & Kns bd w As upw str).
  - Commands.—Arms—bend!... Heels—raise!... With knees bending arms upward—stretch!... Knees—stretch!... Heels lower and arms—bend!... Arms downward—stretch!...
  - Remarks.—When the exercise is taken by numbers, the arms are moved on the second and fourth counts, the command being, "With heels raising and knees bending, arms upward stretching by numbers—one! . . . two! . . . three! . . . four!"
- 16. Exercise.—Standing: Feet obliquely forward placing and Heels raising and Knees bending with Arms upward and downward stretching (St: F obl forw pl & Hls rais & Kns bd w As upw & dnw str).
  - Commands.—Feet close and full-open! . . . Left (right) and right (left) foot obliquely forward placing and heels

raising and knees bending with arms upward and downward stretching by numbers—one!...two!...
three!...four!...five!...six!...Feet close and—open!...

Remarks.—At "one!" the left (right) foot is placed obliquely forward and the arms bent. At "two!" the heels are raised. At "three!" the knees are bent outwardly, body evenly poised over both feet, and the arms stretched upward. At "four!" the knees are stretched. At "five!" the heels are lowered and arms bent; and at "six!" the left (right) foot recovered and the arms stretched downward. The exercise is then repeated with the right (left) foot.

17. Exercise.—Reach Spring (b) Standing: Alternate Arms upward and sideways swinging with Head turning (Rch Spg (b) St · Alt As upw & sdw swg w Hd tn).

Commands.—Heels and arms forward—raise!... Knees full—bend!... With head left turning, left arm sideways and right arm upward—swing!... With head forward turning, arms forward—swing!... With head right turning, right arm sideways and left arm upward—swing!... With head forward turning, arms forward—swing!... Knces—stretch!... Heels and arms—lower!...

Remarks.—The "Spring (b)" position is held while the arm movements are carried out, the head being turned in the direction of the arm which is sideways.

## WITH APPARATUS

t8. Exercise.—Half Crook (b) Instep Support Standing: Heel raising and Knee bending (½ Crk (b) Istp Sup St: HI rais & Kn bd). (W.B., Bm, Bch, Liv.Sup.)

Commands.—Left (right) instep support—place!...

Right (left) heel—raise!... Knee—bend!... Knee
— stretch!... Heel—lower!... Feet together—
place!... (Feet change—place!).

Remarks.—The position for commencing this exercise is

reached on the commands, "Back Toward Standing at the wall-bars (benches) (beam)—fall-in!" "One short step (two footlengths) forward—march!" The support is taken by placing the right (left) instep on the apparatus at about knee height (Fig. 108). The heel raising and knee bending are carried out as before. The exercise may also be performed by bending the knee without the heel



Fig. 108.

formed by bending the knee without the heel raising  $(\frac{1}{2} \operatorname{Crk}(b) \operatorname{Istp} \operatorname{Spg}(a) \operatorname{St})$ .

- 19. Exercise.—Stretch Half Crook (b) Instep Support Spring (a) Standing: Arms upward stretching (Str ½ Crk (b) Istp Sup Spg (a) St: As upw str). (W.B., Bm, Bch; Liv.Sup.)
  - Commands.— With left (right) instep support, arms—bend!... With right (left) knee bending, arms upward—stretch!... Arms upward stretching by numbers—one!... two!... With right (left) knee stretching, arms bend!... Feet change—place!... With left (right) knee bending, arms upward—stretch!... Arms upward stretching by numbers—one!... two!... With left (right) knee stretching, arms—bend!... Feet together and arms downward—stretch!...
  - Remarks.—The starting position is taken as in Exercise 18. If heel raising is inserted, the command "Right (left) heel—raise!" will follow "arms—bend!" After bending the right (left) knee, the position is retained while the arms stretching is performed. At "one!" the arms are bent, and at "two!" they are stretched upward again. "Feet change—place!" is executed in two motions, the left (right) foot being brought to the right (left), followed by the latter being bent backward into the support position. At "Feet together and arms downward—stretch!" the raised foot and arms are simultaneously brought to "attention."
- 20. Exercise.—Half Spurn (b) Foot Support Standing: Heel raising and Knee bending (½ Spn (b) F Sup St: Hl rais & Kn bd). (W.B., Bm, Bch, Liv.Sup.)
  - Commands.—Left (right) foot support—place! . . . Right

- (left) heel—raise!... Knee bend!... Knee stretch!... Heel—lower!... Feet together—place!... Remarks.—The position for commencing this exercise is reached on the command, "Left (right) side toward standing at the wall-bars (benches) (beam)—fall-in!" "One step to the right (left)—march!" The support is taken by placing the left (right) foot on the apparatus at knee height, and the heel raising and knee bending carried out as before (\* Spn (b) F Sup
- 21. Exercise.—Reach Half Spurn (b) Foot Support Standing: Heel raising and Knee bending with alternate Arms upward and sideways stretching returning to "Reach" position (Rch ½ Spn (b) F Sup St · Hl rais & Kn bd w alt As upw & sdw str ret to Rch pos). (W.B., Bm, Bch, Liv.Sup.)

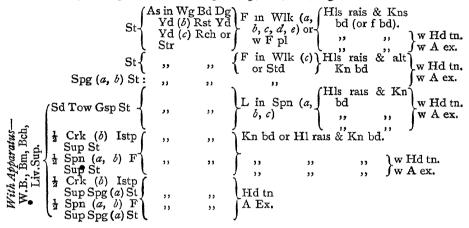
Spg (a) St).

- Commands.—With left (right) foot support, arms forward -stretch!... With heel raising and knee bending, alternate arms upward and sideways stretching, returning to reach position by numbers—one!... two!... three!... four!... Feet together and arms downward—stretch!...
- Remarks.— The "Reach Half Spurn (b) Foot Support Standing" is assumed in two movements by arms bending, followed by left (right) leg sideways raising to Foot Support and arms forward stretching. At "one!" the heels are raised and arms bent. At "two!" the right (left) knee is bent, and right (left) arm stretched sideways, and left (right) arm stretched upward. At "three!" the knee is stretched and arms bent, and "four!" the heel lowered and arms stretched forward. "Feet together and arms downward—stretch!" is executed in two movements, the arms being bent, followed by the foot and arms being brought to "attention."
- 22. Exercise.—Half Spurn (a) Foot Support Standing: Heel raising and Knee bending (½ Spn (a) F Sup St · Hl rais & Kn bd). (W.B., Bm, Bch, Liv.Sup.)

- Commands.—Left (right) foot support—place!... Right (left) heel—raise!... Right (left) knee—bend!... Knee—stretch!... Heel—lower!... Feet together—place!... (Feet change—place!).
- Remarks.—The position for commencing this exercise is reached on the commands, "Toward standing at the wall-bars (benches) (beam)—fall-in!" "One step (three foot-lengths) backward—march!" The support is taken by placing the left (right) foot on the apparatus about knee height, the whole of the weight of the body being upon the right (left) leg. The heel raising and knee bending will follow as in previous exercises (½ Spn (a) F Sup Spg (a) St).
- 23. Exercise.—Wing Half Spurn (a) Foot Support Spring (a) Standing: Head turning (Wg ½ Spn (a) F Sup Spg (a) St: Hd tn). (W.B., Bm, Bch, Liv.Sup.)
  - Commands.—Left (right) foot support and hips—firm!
    ... Right (left) heel—raise!... Knee—bend!...
    Head left and right turning by numbers—one!...
    two!... three!... four!... Knee—stretch!...
    Heel—lower!... Feet together and arms downward—stretch!...
  - Remarks.—The starting position is assumed as in Exercise 22, the hands being placed on the hips with the foot support. After the heel has been raised and knee bent, the position is maintained while head turning left, forward, right, and forward, to "one! two! three! four!" respectively, is performed. The knee is then stretched and heel lowered. "Attention" is resumed by the foot and arms being brought into position in one motion.
- N.B.—Instep and foot supports may be supplied by one pupil taking the lunging or kneeling position and grasping the foot of another. Combined commands may be given as follows: "Odd numbers left (right) instep (foot), even numbers with backward (forward) lunge (half kneeling), support—place!"

## Summary

Methods of Progression.—2, 3, 6, 9, 10, 11, 15, 16.



*N.B.*—An adjustable support for exercises at Knee height may easily be fixed each side of the parallel bars between the uprights.

## LUNGING

- 24. Exercise.—Standing: Forward lunging (St: Forw lge).

  Commands.—Left (right) foot forward in lunge position—
  place!... Feet together—place!... (Feet change—
  place!).
  - Remarks.—The left (right) foot is carried three foot-lengths forward with the heel in line, the angle of the feet being maintained and the knee bent over the toe. The head, body, and rear leg are in line, forming an angle of approximately 60 degrees with the ground, and the shoulders square to the front (Lge (a) St). (See also Dorsal Exercises)
- 25. Exercise.—Wide Standing: Oblique forward lunging (Wd St: Obl forw lge).
  - Commands.—Left (right) foot obliquely forward in lunge position—place!...(Feet change—place!).

- Remarks.—The left (right) foot is carried three foot-lengths obliquely forward to the left (right) at an angle of 45 degrees to the front, the feet being maintained at 90 degrees and the knee bent over the toe. The head, body, and rear leg are in line, forming an angle of approximately 60 degrees with the ground, the shoulders being square to the front with the left (right) shoulder slightly lower than the right (left) (Lge (b) St). (See also Lateral Exercises.)
- 26. Exercise.—Standing: Sideways lunging (St: Sdw lge).

  Commands.—Left (right) foot sideways in lunge position

  —place!... Feet together—place!... (Feet change
  —place!).
  - Remarks.—The left (right) foot is carried three foot-lengths sideways to the left (right), the angle of the feet being maintained and the knee bent over the toe. The head, body, and right (left) leg are in line forming an angle of approximately 60 degrees with the ground. The shoulders are square to the front, with the left (right) shoulder slightly lower than the right (left) (Lge (c) St). (See also Lateral Exercises.)
- 27. Exercise.—Wide Standing · Obliquely backward lunging (Wd St : Obl bkw lge).
  - Commands.—Left (right) foot obliquely backward in lunge position—place!... Feet together—place!... Feet change—place!).
  - Remarks.—The left (right) foot is carried three foot-lengths obliquely backward to the left (right) at an angle of 45 degrees to the front, the feet being maintained at 90 degrees and the right (left) knee bent over the toe. The head, body, and rear leg are in line, forming an angle of approximately 60 degrees with the ground, the shoulders square to the front, with the right (left) shoulder slightly lower than the left (right) (Lge (d) St). (See also Dorsal Exercises.)
- 28. Exercise.—Standing Backward lunging (St: Bkw lge).

  Commands.—Left (right) foot backward in lunge position

- —place!... (Feet change —place!).
- Remarks.—The left (right) foot is carried three foot-lengths backward, the angle of the feet preserved, and the right (left) knee bent over the toe. The head, body, and rear leg are in line, forming an angle of approximately 60 degrees with the ground, and the shoulders square to the front (Lge (e) St). (See also Dorsal Exercises.)
- 29. Exercise.—Standing: Backward Toe lunging (St: Bkw Toe lge).
  - Commands.—Left (right) foot backward in toe lunge position—place!... Feet together—place!... (Feet change—place!).
  - Remarks.—The left (right) foot is carried backward three foot-lengths, the toe only touching the ground, the right (left) knee being bent and the body inclined as in the "Forward lunge" position (Toe Lge St). (See also Dorsal Exercises.)
- 30. Exercise.—Half Stretch Half Drag Lunge (a) Standing: Feet and Arms changing (\frac{1}{2} Str \frac{1}{2} Dg Lge (a) St: F & As ch).
  - Commands.—With left (right) foot forward lunging, right (left) arm upward, left (right) arm backward—stretch!... Feet and arms change—stretch!... Feet together and arms downward—stretch!...
  - Remarks.—The starting position is reached in two motions, arm bending being followed by forward lunging and arm stretching. If the lunge is made with the left foot, the right arm is stretched upward and left arm downward, or vice versa. Feet and arms changing is performed in two movements, by recovering with the left (right) foot and bending the arms, and then lunging forward with the right (left) foot and stretching the arms. To return to "attention" the arms are bent, and the foot recovered and arms stretched downward.
- 31. Exercise.—Half Bend Half Wing Lunge (b) Standing: Arm upward stretching (½ Bd ½ Wg Lge (b) St: A upw str).

- Commands.—Feet close and full—open!... With left (right) foot obliquely forward lunging, left (right) hand hip firm, and right (left) arm—bend!... Right (left) arm upward—stretch!... Bend!... Feet and arms c'u | ' . ! . . . Feet together and arms downward—stretch!... Feet close and full—open!...
- Remarks.—The arm to be stretched is always on the upper side when lunging obliquely or sideways. When lunging obliquely forward to the left (right), therefore, the left (right) hand, being the lower, will be placed on the hip, and the right (left) arm bent. The arm movements and lunge are made simultaneously when adopting the starting position, unless there are two movements of the arms, when the lunge is made on the second. In feet and arms changing the left (right) foot is recovered, and then the lunge made with the right (left) foot and the arms changed, the one in "Wing" being changed to "Bend," and vice versa. The recovery to "attention" is made in one motion.
- 32. Exercise.—Yard Lunge (c) Standing: Heel and Arms raising (Yd Lge (c) St: Hl & As rais).
  - Commands.—With left (right) foot sideways lunging, arms sideways—stretch!... Left (right) heel and arms upward—raise!... Heel and arms—lower!... With arms sideways stretching, feet chair place!... Right (left) heel and arms upward—raise!... Heel and arms—lower!... Feet together and arms downward—stretch!...
  - Remarks.—The starting position is reached in two motions, arms bending being followed by sideways lunging and arms sideways stretching (the arms are at right angles to the trunk). As the heel is raised the arms are lifted to "stretch" and returned again at "lower!" Arms sideways stretching and feet changing is executed in two movements, the left (right) foot recovering and arms being bent, followed by the right (left) foot lunging sideways and arms being stretched. "Attention" is resumed by bending the arms and then recovering

with the right (left) foot and stretching the arms downward.

33. Exercise.—Reach Standing: Backward Toe lunging with alternate Arms upward and backward swinging (Rch St: Bkw Toe lge w alt As upw & bkw swg).

Commands.—Arms forward—stretch!...With left (right) foot backward in toe lunge, left (right) arm upward and right (left) arm backward—swing!...Feet and arms change—swing!...Feet together and arms forward—swing!...Arms downward—stretch!...

Remarks.—The lunging position is taken as in Exercise 29, and as the left (right) foot is carried backward the left (right) arm is swing upward and right (left) arm backward. Feet and arms changing is performed by recovering with the left (right) foot and swinging both arms forward, and as the right (left) foot is carried backward the right (left) arm is swung upward and left (right) downward. The remainder of the exercise follows the same principle.

N.B.—Lunges may be performed with moving forward in Lunge (a) and (b), backward in Lunge (d) and (e), and sideways in Lunge (c). The commands are then prefixed by the remark, "Moving forward," etc. etc.

When moving forward, the rear foot is drawn up each time after lunging forward, when moving backward the forward foot is drawn up, and when moving sideways to left (right) the right (left) foot is drawn up

## With Apparatus

34. Exercise. — Half Crook (b) Instep Support Standing: Forward Lunging (\frac{1}{2} Crk (b) Istp Sup St: Forw lge). (W.B., Bm, Bch, Liv.Sup.)

Commands.—Left (right) instep support — place! . . .

Right (left) foot forward in lunge position—place! . . .

Right (left) foot backward—place! . . . Feet together
—place! . . . (Feet change—place! (I-4)).

Remarks.—After the starting position has been taken, as in Exercise 18, the forward lunge is made by hopping

forward with the right (left) foot, the head, body, and left (right) leg being horizontal (Hor (b) Istp Sup  $\frac{1}{2}$  St). (See also Dorsal Exercises.)

- 35. Exercise. Stretch Horizontal (b) Instep Support Half Standing: Arms upward stretching (Str Hor (b) Istp Sup ½ St: As upw str). (W.B., Bm, Bch, Liv.Sup.)
  - Commands. Left (right) instep support and arms—bend!... With right (left) foot forward lunging, arms upward stretch!... Arms bend!... Stretch!... With arms upward stretching feet change—place!... Arms bend!... Stretch!... Feet together and arms downward—stretch!...
  - Remarks.—As the instep support is taken the arms are bent, and with the forward lunge they are stretched upward. The position is maintained while arms stretching upward is performed. Feet and arms changing is executed in four motions: (I) the forward foot is recovered, (2) the supported foot is brought to the ground and arms bent, (3) the opposite foot is placed in support, and (4) the lunge is made with arms upward stretching. After the arms stretching has been repeated, the forward foot is drawn backward and arms bent, followed by the supported foot and arms being brought to "attention." Living Support is supplied as per N.B. on page 72.

## Summary

Methods of Progression.—3, 5, 6, 10, 11, 16.

#### SPAN BENDS

## ARCH FLEXIONS OR PREPARATORY SPAN BENDS

36. Exercise —Walk (c) (Stride) Standing: Trunk backward bending (Wlk (c) (Std) St: T bkw bd).

- Commands.—Left (right) foot sideways (feet astride) place! . . . Trunk backward—bend! . . . Upward—stretch! . . . Feet together—place! . . . (Feet change—place!).
- Remarks —The starting position is taken up as for Exercise 7. The chin is drawn in and the chest lifted, the head being carried backward together with the upper part of the spine. The position of the hips is maintained throughout. (See Fig. 109.)
- 37. Exercise.—Half Bend Half Wing Walk (e) Standing: Trunk backward bending with Arm upward stretching ( Bd & Wg Wlk (e) St: T bkw bd w A upw str).
  - Commands.—With left (right) foot backward, left (right) hard hip firm, and right (left) arm—bend! . . . With right (left) arm upward stretching, trunk backward bend!... With arm bending, trunk upward—stretch! ... Feet and arms change—place | ... With left (right) arm upward stretching, trunk backward—bend! . . . With arm bending, trunk upward—stretch! . . . Feet together and arms downward—stretch! . . .
  - Remarks.—As the right (left) foot is carried backward, the left (right) hand is placed on the hip, and the right (left) arm bent. The trunk is then bent backward, and the right (left) arm stretched slowly upward. As the moving of the left (right) foot backward increases the muscular action obliquely in the direction of that leg, that oblique action is further accentuated by stretching the right. (left) arm. If the left (right) foot is moved forward. the arm of the same side is stretched upward so as to obtain a similar result. Feet and arm changing is executed in two motions, the left (right) foot being replaced and the right (left) foot carried to the rear, with the arm changing from "Wing" to "Bend," and vice versa.
- 38. Exercise.—Yard Walk (b) Standing: Trunk backward bending with Hand turning (Yd Wlk (b) St: T bkw bd w Hn tn).
  - Commands.—With feet closing and full opening, arms bend! . . . Left (right) foot obliquely forward and

- arms sideways—stretch!... With hand turning, trunk backward—bend!... Upward—stretch!... With arms sideways stretching, feet change-place!... With hand turning, trunk backward—bend!... Upward—stretch!... Feet together and arms—bend!... With feet closing and opening, arms downward—stretch!...
- Remarks.—The feet closing and full opening is performed in two motions, the arm movement being made on the second. As the left (right) foot is placed obliquely forward the arms are stretched sideways. With the trunk backward bending the palms of the hands are turned upward, and with the trunk upward stretching they are turned downward. The arms sideways stretching and feet changing is executed by closing up the left (right) foot and bending the arms, and then placing the right (left) foot obliquely forward and stretching the arms sideways.
- 39. Exercise.—Bend Arch Standing: Feet closing with Arms upward stretching (Bd Ar St: F cl w As upw str).
  - Commands.—Arms—bend!... Trunk backward—bend!... With feet closing, arms upward—stretch!... With feet opening, arms—bend!... Trunk upward—stretch!... Arms downward—stretch!...
  - Remarks.—After the "Bend Arch Standing" position has been taken, the feet are closed and arms stretched upward fairly quickly. The feet are then opened and arms bent, followed by the trunk stretching upward.
- 40. Exercise.—Yard Walk (a) Arch Standing: Feet changing with Arms upward-swinging (Yd Wlk (a) Ar St: F ch w As upw swg).
  - Commands.—Left (right) foot forward and arms sideways —stretch!... Trunk backward bend!... Feet changing with arms upward swinging by numbers—one!... two!... Trunk upward—stretch!... Feet together and arms down-ward—stretch!...
  - Remarks.—" Yard Walk (a) Standing" is assumed in two

motions, the foot movement taking place on the second. After bending the trunk backward, at "one!" the feet are brought together and arms raised upward, and at "two!" the opposite foot is placed forward and arms lowered sideways. This is repeated to similar counts, and the trunk stretched upwards. The whole is then repeated by placing the right (left) foot forward.

## Summary

Methods of Progression —3, 5, 6, 9, 10, 16.

 $St \begin{cases} As \text{ in Wg Bd Dg} & F \text{ in Wlk} \\ Yd(b) & Rst Yd Str \\ (a, b, c, d, e) \end{cases} \begin{cases} T \text{ bkw bd} \\ \text{,, w A ex.} \end{cases}$   $Ar St \qquad , \qquad , \qquad F \text{ cl or F ch} \\ \text{,, the forw bd} \\ \text{, the forw rais} \end{cases} w A ex.$ 

SUPPORT ARCH FLEXIONS OR INTERMEDIARY SPAN BENDS

41. Exercise.—Stride Loin Support Standing: Trunk backward bending (Std Loin Sup St: T bkw bd). (Bm, P.B., Liv.Sup.)

Commands.—Left (right) foot sideways (Feet astride)—
place!... Trunk backward—bend!... Upward—
stretch!... Feet toggt of place!...

Remarks.—The starting position is taken up on the command, "Back toward standing at the beam (parallel bars)—fall-in!" the apparatus being placed at a height level with the loins (see Fig. 110). The trunk backward bending is carried out as in Exercise 36.

With "Living support" and the squad working in single rank at half intervals, the odd numbers provide

Fig. 110.

the support by carrying the left foot backward and bending the forward knee (Lge (e)), and placing the palms of the hands on the loins (back) of the even numbers on each side, the fingers being directed slightly

upward and the right hand of one support being below the left hand of the next support. When in two ranks the rear rank provides the support in a similar manner by lunging forward (Lge (a)) as in Fig. III.

42. Exercise.—Walk (c) (Stride) Back Support Standing: Trunk backward bending (Wlk (c) (Std) Bk Sup St: T bkw bd). (Bm, P.B., Liv.Sup.)

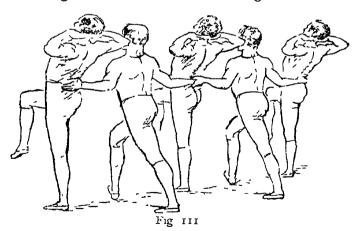
Commands.—Left (right) foot sideways (Feet astride) — place! . . . Trunk backward — bend! . . . Upward — stretch! . . . Feet together—place! . . .

Remarks.—As in Exercise 41, except that the apparatus is placed at the height of the shoulder blades. By reason of the support, which relieves the strain on the abdominal muscles, the arching of the spine may be increased and isolated to the dorsal region. (See Fig. 110a.)



Fig. 110a.

43. Exercise.—Rest Half Crook (a) Back Support Arch Fall Standing: Knee forward stretching with Arms upward



stretching (Rst ½ Crk (a) Bk Sup Ar Fl St Kn forw str w As upw str). (Bm. P.B., Liv.Sup.)

Commands.—Neck—rest!... Trunk backward—bend!... Fall!... Left (right) knee forward—bend!...

With knee forward stretching, arms upward—stretch!... With knee bending, neck — rest!... Knee downward—stretch!... Trunk upward—stretch!... Hands—down!...

Remarks.—"Back Toward Standing" is taken with the apparatus at the height of the shoulder blades about 3 inches away. At "Fall!" the trunk, maintaining the "Arch," is allowed to fall backward from the ankles until the back is supported (see Fig. III). From this position the left (right) knee is bent forward. With knee forward stretching the arms are stretched upward, and with knee forward bending they return to "Neck Rest." The knee is then stretched downward, and at "Upward—stretch!" the trunk is stretched and raised to the "Rest Standing" position. The exercise is then repeated with the opposite leg.

## Summary

Methods of Progression -- 3, 4, 5, 6, 7, 9, 10, 11, 16.

## SPAN BENDS (TRUE)

## UPPER-ARM SUPPORTS

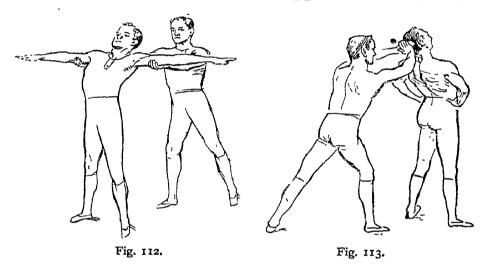
44. Exercise.—Yard Stride Arch Standing: Trunk falling with Upper-Arm Support (Yd Std Ar St: T fl w Up-A Sup).

Commands.—Front rank with feet astride, arms sideways stretch, rear rank upper-arm support—place!...

Trunk backward—bend!...Fall!...Upward—stretch!.., Position—place!...

Remarks.—The supporting rank takes up its position two

steps in the rear of the front rank, the "Yard Stride Standing" and support positions being assumed to the commands, "Front rank with feet astride, arms sideways stretch, rear rank upper-arm support—place!" the rear rank moving the left foot forward two footlengths and raising the arms forward on the second count. On the command, "Trunk backward—bend!" the front rank takes the "Arch" position, and at "Fall!" falls from the ankles a few inches, the rear rank grasping the upper-arm near the shoulder with the back of the hand downward and thumbs uppermost (see Fig. 112).



At "Upward—stretch!" the front rank raises the body to the upright position. "Attention" is resumed on the command, "Position—place!" the rear rank moving again on the second count.

45. Exercise.—Stride Arch Standing: Trunk falling with Head support (Std Ar St: T fl w Hd sup).

Commands.—Front rank feet astride, rear rank head support — place!... Trunk backward — bend!... Fall!... Upward—stretch!... Position—place!...

Remarks.—The supporting rank takes up its position two steps in the rear, the "Stride Arch Standing" and

support being assumed on a similar principle to Exercise 44, the right hand being placed over the left, and fingers directed slightly upward in the head support. (See Fig. 113.)

#### ELBOW SUPPORTS

46. Exercise.—Rest Stride Arch Standing: Trunk falling with Elbow support (Rst Std Ar St: T fl w Elb sup).

Commands.—Front rank with feet astride, neck rest, rear rank elbow support—place!... Trunk backward—bend!... Fall!... Upward — stretch!... Position—place!...

Remarks.—This exercise is carried out on the same principle as No. 44, the support being supplied at the elbows with the back of the hand downward and thumbs upward.

#### Wrists Supports

47. Exercise.—Stretch Stride Arch Standing: Trunk falling with Wrist support (Str Std Ar St: T fl w Wr sup).

Commands.—Front rank with feet astride, arms upward stretch, rear rank wrist support—place!... Trunk backward—bend!... Fall!... Upward—stretch!... Position—place!...

Remarks.—The front and rear ranks take up the starting position as in Exercise 44, the rear rank having the arms in the "Stretch" position. At "Fall!" the rear rank carry the arms slightly forward and grasp the wrists of the front

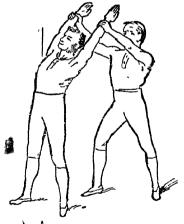


Fig. 114.

rank with the back of the hands outward (see Fig. 114). At "Upward—stretch!" both ranks return to the "Stretch" position.

## Summary

Methods of Progression.—3, 5, 6, 9, 10, 11, 16.

 $\overset{\text{fin}}{\text{Fin}} \left\{ \begin{array}{c} \text{Ar St (As in Yd Rst Str) (F in Wlk } (\alpha, b, \begin{cases} T \text{ fi w Up-A Hd} \\ c, d, e \end{cases} \right) \\ \text{Up-A, Hd, } \\ \text{Elb, Wr} \right\} \text{Sup S.B. St} \\ \text{Sup } \overset{\text{}}{\text{S.B. St}} \\ \text{S.B. St} \\ \text{Sup } \overset{\text{}}{\text{S.B. St}} \\ \text{Sup } \overset{\text{}}{\text{$ 

## With Apparatus

- 48. Exercise.—Stretch Grasp Back Toward Standing: Forward Stepping to Span Bend Standing: (Str Gsp Bk Tow St: Forw Step to S.B. St.)
  - Commands.—Arms upward—stretch!... Grasp!...

    One short step forward—march!... One short step backward—march!... Arms downward—stretch!...
  - Remarks.—The "Back Toward" position is taken on the command, "Back toward the wall bars (beam)—fall in!" At "One short step forward—march!" the feet are moved a distance of about 6 inches forward; at the same time the head is carried slightly backward, with the chin drawn in and the chest well lifted. (See Fig. 115, but with feet together.)
- 49. Exercise.—Stretch Stride Back Toward Arch Standing: Trunk falling to Span Bend (Str Std Bk Tow Ar St: T fl to S.B.). (W.B., Bm, Liv.Sup.)
  - Commands.—With feet astride, arms upward stretch!... Trunk backward—bend!... Fall!... Grasp!... Upward stretch!... Feet together and arms downward—stretch!...
  - Remarks.—The "Back Toward" position is taken on the command, "Back toward the wall-bars (beam)—fall-in!" followed by, "One short forward—march!" At "Fall!"

Fig. 115.

pace (6 inches) the body falls

backward from the ankles until the thumbs rest against the apparatus. At "Grasp!" the hands grasp the bar, palms forward and thumbs around (see Fig. 115). At "Upward—stretch!" the "Stretch Stride Standing" position is resumed.

50. Exercise.—Stride Span Bend Standing: Heels raising (Std S.B. St: Hls rais). (W.B., Bm, Liv.Sup.)

Commands.—With feet astride, arms upward—stretch!
... Trunk backward—bend!... Fall!... Grasp!
... Heels—raise!... Lower!... Trunk upward—stretch!... Feet together and arms downward—stretch!...

Remarks.—The starting position is assumed as in Exercise 49, and heels raising is performed to increase the span.

51. Exercise.—Half Stretch Half Wing Grasp Span Bend Standing: Knee forward bending (½ Str ½ Wg Gsp S.B. St: Kn forw bd). (W.B., Bm.)

Commands.—Left (right) hand hip firm, right (left) arm upward—stretch!... Trunk backward—bend!... Fall!... Grasp!... Left (right) knee forward—bend!... Downward—stretch!...

Trunk upward—stretch!...Arms change—stretch!... etc.

Remarks.—The grasp being taken by one hand only, creates an oblique action in that direction. To further increase this oblique action the leg of the opposite side is raised, necessitating a contraction of the muscles between the thigh and the pelvis. This in turn brings the abdominal muscles into play, tending to pull their upper attachments obliquely down to that side (see Fig. 116). At "Trunk upward—stretch!" the "Half



Fig. 116.

Stretch Half Wing Standing" position is resumed with a slight push away with the right (left) hand. The arms are then changed in two motions, arms bending being followed by left (right) arm upward stretching and right (left) hand taking hips firm. The exercise is then repeated on the opposite side.

## Summary

Methods of Progression.—3, 5, 6, 8, 9, 10, 11.

Apparatus-W.B., Bm.

Str Gsp Bk Tow St: Forw Step to S.B. St.

Str Ar St (F in Wlk (a, b, c, d, e)): T fl to S.B.

S.B. St (F in Wlk (a, b, c, d, e)): F cl (F ch) (Hls rais).

(1 Gsp) S.B. St: Kn forw bd (L forw rais).

 $(\frac{1}{2} \text{ Gsp}) \frac{1}{2} \text{ Crk } (a) \text{ S.B. St} : \text{ F bd & str (Kn forw str) (Hl rais)}.$ 

 $(\frac{1}{2} \text{ Gsp}) \frac{1}{2} \text{ Spn } (a) \text{ S.B. St} : \text{ F bd & str (Kn bd) (Hl rais).}$ 

## HEAVING EXERCISES (PREPARATORY)

#### ARM RAISING AND PARTINGS

- 52. Exercise.—Standing: Arms forward (sideways) raising (St: As forw (sdw) rais).
  - Commands.—Arms forward (sideways)—raise! . . . Arms downward—lower! . . .
  - Remarks.—In forward raising the arms are kept parallel, and 'raised to shoulder height with the palms inward and chest well lifted to the "Reach" position. In sideways raising the arms are carried sideways to shoulder height, being kept moderately back with the palms of the hands downward, to the "Yard" position.
- 53. Exercise.—Standing. Arms forward and upward (sideways and upward) raising (St: As forw & upw (sdw & upw) rais).
  - Commands.—Arms forward and upward (sideways and upward)—raise!... Arms forward and downward (sideways and downward)—lower!...
  - Remarks.—The arms are raised forward and upward or sideways and upward to the "Stretch" position.

- 54. Exercise.—Reach (Stretch) Standing: Arms parting (Rch (Str) St: As part).
  - Commands.—Arm parting by numbers—one!...two!...

    Remarks.—The arms are carried (lowered) sideways to the "Yard" (Yard (c)) position on "one!" At "two!" they return to the "Reach" (Stretch) position.
- 55. Exercise.—Stride Standing: Alternate Arms forward and sideways raising (Std St: Alt As forw & sdw rais).
  - Commands.—Feet astride—place!... Left (right) arm forward and right (left) arm sideways—raise!... Lower!... Right (left) arm forward and left (right) arm sideways—raise!... Lower!... Feet together—place!...
  - —place!...

    Remarks.—"Feet astride—place!" is executed in two motions, the left foot being placed sideways one footlength, followed by the right foot one footlength to the right. The left (right) arm is then raised forward simultaneously with the right (left) arm being raised sideways. At "Lower!" both arms are lowered and the exercise repeated on the opposite side.
- 56. Exercise.—Close Walk (a) Standing: Alternate Arms forward and upward and sideways and upward raising (Cl Wlk (a) St: Alt As forw & upw & sdw & upw rais). Commands.—Feet—close!... Left (right) foot forward—
  - Commands.—Feet—close!...Left (right) foot forward—place!...Left (right) arm forward and upward, and right (left) arm sideways and upward—raise!...Lower!...Right (left) arm forward and upward, and left (right) arm sideways and upward—raise!...Lower!...Feet together—place!...Feet—open!...
  - Remarks.—After the feet closing has been performed, the left (right) foot is placed two foot-lengths forward. The arms are then raised simultaneously, one forward and upward and the other sideways and upward. They may be lowered through the same directions, or the one raised forward and upward lowered sideways and downward, and vice versa. In the latter event, the command should indicate the direction for returning

## Summary

Methods of Progression.—3, II, I4.

St (F in Cl, Wlk (a, b, c, d, e)): As rais (forw, sdw, forw & upw, sdw & upw).

Rch (Str) St (F in Cl, Wlk (a, b, c, d, e)): As part. St (F in Cl, Wlk (a, b, c, d, e)): Alt As rais.

N.B.—Arms raising and parting being executed slowly are not usually accompanied by Foot placing. Performed quickly they become Arm Swingings.

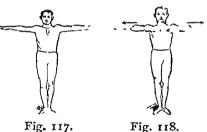
#### ARM FLINGINGS

57. Exercise — Yard (b) Standing: Arms flinging (Yd (b) St: As flg).

Commands — Arms forward—bend! . . . Arms — fling!

... Bend!... Arms downward—stretch!...

Remarks.—From the "Yard (b)" the forearms are flung sideways to the "Yard" position. The exercise may also be taken from the "Yard" position, in which case



ig. 117. rig. 110.

the command is "Arms forward—bend! . . . Fling!" (See Figs. 117 and 118.)

58. Exercise.—Yard (b) Standing: Feet closing and opening with Head turning and alternate Arms flinging (Yd (b) St: F cl & op w Hd tn & alt As flg).

Commands.—Arms forward—bend!... With feet closing and head turning, alternate arms flinging left (right) and right (left) by numbers—one!... two!... three!... four!... Arms downward—stretch!...

Remarks.—The starting position is assumed as in Exercise 57. At "one!" the feet are closed, head turned to the left (right) and left (right) arm flung sideways. At

"two!" the feet are opened, head turned forward and (left) right arm bent. At "three!" the feet are closed, head turned to the right (left) and right (left) arm flung sideways. At "four!" the feet are opened, head turned forward and right (left) arm bent.

## Summary

Methods of Progression.—3, 10, 11.

Yd (b) (Rst) (F in Cl, Wlk (a, b, c, d, e)) St : As flg w Hd tn. ,, ,, : Alt As flg (4–2) w F cl & op (F pl F ch)

#### ARM SWINGINGS

- 59. Exercise.—Standing: Arms forward (sideways) swinging (St: As forw (sdw) swg).
  - Commands. Arms forward (sideways) swing! . . . Downward (backward)—swing! . . .
  - Remarks.—This exercise is similar to "Arms forward (sideways) raising," except that it is taken quickly. In backward swinging the arms move backward to an angle of approximately 45 degrees with the trunk, palms of hands inward, to "Drag" position.
- 60. Exercise.—Standing : Arms forward and upward (sideways and upward) swinging (St: As forw & upw (sdw & upw) swg).
  - Commands.—Arms forward and upward (sideways and upward)—swing!... Arms forward and downward (sideways and downward)—swing!
  - Remarks—The arms are swung forward and upward or sideways and upward to the "Stretch" position.
- 61. Exercise.—Half Reach Half Yard Walk (c) Standing:
  Alternate Arms upward and forward swinging (\frac{1}{2} Rch \frac{1}{2} Yd Wlk (c) St: Alt As upw & forw swg).
  - Commands.—With left (right) foot sideways, left, (right) arm forward and right (left) arm sideways—stretch!...

    Left (right) arm upward and right (left) arm forward—

swing!... Left (right) arm forward and right (left) arm sideways—swing!... With arms stretching, feet and arms change—place!... Right (left) arm upward and left (right) arm forward—swing!... Right (left) arm forward and left (right) arm sideways—swing!... Feet together and arms downward—stretch!...

Remarks.—The starting position is reached in two movements, arms bending being followed by left (right) foot sideways placing, and left (right) arm forward and right (left) arm sideways stretching. As the left (right) arm is swung upward, the right (left) arm is swung forward, being returned to the next command. Feet and arms changing is performed in two motions, the left (right) foot being replaced as the arms are bent, and the right (left) foot moved off as the right (left) arm stretches forward and left (right) arm sideways.

## Summary

Methods of Progression.—3, 10, 11, 14.

St(As in Rch Yd): (F in Cl, Wlk  $\{As swg\}$  forw, sdw, forw &  $\{w F cl \& op\}$  w Hd tn. (a, b, c, d, e))  $\{Alt As swg\}$  upw, sdw & upw  $\{w F cl \& op\}$  w Hd tn.

## ARM BENDINGS AND STRETCHINGS

62 Exercise.—Standing: Hips firm (St: H f.).

Commands.—Hips—firm!... Hands—down!...

Remarks.—The hands are placed on the hips with fingers forward and together, and the thumbs to rear. The fingers point slightly upward and the wrists are pressed well down, the palms being flat on the hips. In order to secure the correct position the exercise may be taken to two counts, the second one being used to emphasise the pressing down of the wrists (Wg St). At "Hands—down!" the arms are stretched smartly down to the position of "attention."

63. Exercise — Standing Arms bending (St: As bd).

Commands.—Arms—bend!...Downward—stretch!...

Remarks.—The upper-arms maintain their position against

the sides, and the forearms, kept well back, are bent until the finger-tips touch the point of the shoulders (Bd St). It is advisable to teach the exercise by turning the palms of the hands outward before bending the arms, or an alternative method is supplied by raising the arms sideways, turning the palms upward, bending the arms until the fingers touch the tip of the shoulders, and then drawing the elbows into the sides. At "Downward—stretch!" the forearms are stretched down to "attention" without the elbows moving away from the sides.

- 64. Exercise.—Standing: Arms forward bending (St: As forw bd).
  - Commands. Arms forward bend!... Downward—stretch!...
  - Remarks.—The arms are raised sideways to the height of the shoulders, the forearms being bent forward so that the hands are in front of the shoulders, palms down wrists and fingers straight, elbows being well back (Yd (b) St). It is more easily taught from the "Yard Standing," as the forearms are merely bent forward to obtain the position. At "Downward—stretch!" the arms are carried straight down to "attention."
- 65. Exercise.—Standing: Arms bending to Rest (St: As bd to Rst).
  - Commands.—Neck—rest!... Hands—down!...
  - Remarks.—The arms, bent at the elbows, are drawn up the shortest way, and the hands placed behind the neck, finger-tips touching, wrists and fingers straight, palms of hands forward, and elbows drawn well back (Rst St). This exercise may be taught from the "Yard Standing," as the forearms are merely bent upward to obtain the position. At "Hands—down!" the arms are carried the shortest way to "attention."
- 66. Exercise.—Standing: Arms downward (forward) (backward) (sideways) (upward) stretching (St: As dnw (forw) (bkw) (sdw) (upw) str).

  Commands.—Arms—bend! . . . Downward—stretch! . . .

- Remarks.—Arms bending in some form or other (e.g., "Wg," "Bd," "Yd (b)," "Rst") is taken before all arm stretchings, "Bd" being the most commonly used. From this position the arms are stretched downward, forward, backward, sideways, and upward to the "St," "Rch," "Dg," "Yd," "Str" positions.
- 67. Exercise.—Standing: Left and right turning with alternate Arms upward and forward stretching (St: 1 & r tn w alt As upw & forw str).

Commands.—With left (right) turn, left (right) arm upward and right (left) arm forward—stretch!... With right (left) turn right (left) arm upward and left (right) arm forward—stretch!... Arms downward—stretch!

Remarks.—The turn is divided into two motions, the turn on heel and toe, and the closing up of the rear foot. Arm bending accompanies the first motion, and alternate stretching, in the named directions, the second.

## Summary

Methods of Progression.—3, 10, 11, 14.

St. F in Cl, Wlk (a, b, c, d, e) 
$$\begin{cases} II \text{ f, As bd, As forw bd,} & \text{w I cl & op w F pl} \\ \text{Neck rest} & \text{As str (forw, sdw, upw,} & \text{w F ch} \\ \text{dnw, bkw)} & \text{Alt As str} & \text{w steps forw, bkw, sdw.} \end{cases}$$

## HEAVING EXERCISES (TRUE)

# Subdivision 1.—The Weight of the Body taken by the Arms with the Feet supported

## FALL HANGING

68. Exercise.—Toward Standing Over-grip Fall Hanging (Tow St. Ov-gp Fl Hg) (Bm, P.B., H B., Liv.Sup.)

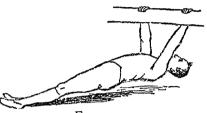
Commands.—Fall hanging by numbers—one!...two!...

three!...Position place by numbers—one!...two!...

Remarks.—The starting position is taken on the commands,

"Toward Standing at the beam (parallel bars)—fall-in!" "One short pace (12 inches) backward—march!" At "one!" the heels are raised and the hands grasp the beam (bar) in "Over-grip" at chest height, or lower, the arms being the width of the shoulders apart. At "two!" the knees and arms are bent slightly, and at

"three!" the legs are swung forward into position and the arms stretched, the legs, body, and head being in line with the arms at right angles to same (see Fig. 119).



F1g. 119.

At "Position place—one!" the legs are drawn up and arms slightly bent, at "two!" the knees are stretched, and at "three!" the heels lowered and arms carried to "attention." When this has been practised a few times it may be taken to the command, "Fall hanging—place!" omitting the numbers.

69. Exercise.—Over-grip Fall Hanging: Feet backward placing (Ov-gp Fl Hg: F bkw pl). (Bm, P.B., H.B.)

Commands.—Fall hanging—place!... Feet backward placing by numbers—one!... two!... Position—place!...

Remarks.—The starting position is taken as in Exercise 68. At "one!" the knees are drawn up and arms bent as in the second position for "Fall Hang." At "two!" they are stretched forward again. "Position—place!" is also resumed as in Exercise 68.

70. Exercise.—Under-grip Fall (b) Hanging: Feet astride placing (Un-gp Fl (b) Hg: F astd pl). (Bm., P.B., H.B.)

Commands.—Under-grip fall hanging—place! . . . Arms—bend! . . . Feet astride—place! . . . Feet together

—place!... Arms—stretch!... Position—place!...

Remarks.—" Under-grip Fall Hanging" is assumed by raising the heels, bending the knccs, and grasping the apparatus at slightly more than shoulder width apart,

and stretching the legs forward into position. The arms are then bent, and at "Feet astride—place!" both feet are simultaneously moved apart so that there is a distance of two foot-lengths between the heels. At "Feet together—place!" they are brought together again. This part of the exercise may be executed to numbers. At "one!" the feet are placed astride, and at "two!" brought together. The remainder of the exercise is performed on the same principle as No. 68, except that the arms are carried to the sides on the second motion of "Position—place!"

- 71. Exercise.—Alternate-grip Fall Hanging: Alternate Leg raising with Arms bending and Head turning (Alt-gp Fl Hg: Alt L rais w As bd & Hd tn). (Bm, P.B., H.B.)
  - Commands.—Alternate-grip hanging left (right) hand under—place!... With alternate leg raising and head turning left (right) and right (left), arms—bend!... Stretch!... Arms change—grasp!... With alternate leg raising and head turning right (left) and left (right), arms—bend!... Stretch!... Bend!... Stretch!... Position—place!...
  - Remarks.—When the left (right) leg is raised the head is turned left (right) and arms bent—At "Stretch!" the leg is lowered, head turned forward, and arms stretched. The grasp is changed by giving a slight pull and releasing the hands, regrasping immediately so that the right (left) hand is under and the left (right) hand over.
- 72. Exercise.—Inward-grip Fall (b) Hanging Backward travelling (Inw-gp Fl (b) Hg Bkw trav) (Bm.)
  - Commands.—Inward-grip fall hanging (right (left) hand in front)—place! . . Arms bend! . . . Backward travelling—commence! . . Halt! . . Position—place! . . .
  - Remarks.—"Left (right) Side Toward Standing" is assumed at the apparatus and "Inward-grip" taken on the second motion of "Fall Hanging" The hands are kept the width of the shoulders apart throughout the exercise. Travelling is commenced by carrying the

right (left) hand over and grasping behind the left (right), and at the same time the body is pulled backward, the feet trailing along the ground. This is re-

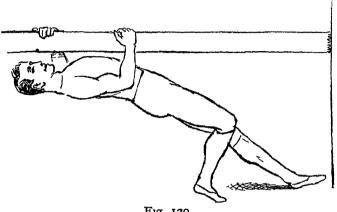


Fig. 120.

peated with each hand alternately until "Halt!" is given. When the legs are used to assist the movement. the left (right) foot is drawn up as the right (left) hand moves backward. (See Fig. 120.)

## Summarv

Methods of Progression.—3, 6, 8, 10.

Apparatus.—Bm, P.B., H.B., Liv.Sup.

St (Ov Un Alt Inw-gp). Fl hg

Fl Hg (Ov Un Alt Inw-gp). As bd (Kn bd forw, \w Hd tn.

Fl (b) Hg (Ov Un Alt Inw-gp):

Fl (Fl (b)) Hg (Ov Un Alt Inw-gp): Sdw (bkw) trav.

#### ARCH HANGINGS

73. Exercise.—Toward Standing: Over-grip Arch Hanging: (Tow St: Ov-gp Ar Hg). (W,B, Bm, PB., H.B.) Commands —Arch hanging by numbers—one! . . . two! . . . three! . . . Position place by numbers—one two! . . , three! . . .

Remarks.—The starting position is taken as in Exercise 68. At "one!" the heels are raised and the bar (beam) grasped in "over-grip" at head height with the arms the width of the shoulders apart. At "two!" the right knee is bent and the left leg extended to the rear, the toe on the ground. At the same time the arms are stretched to the full extent. At "three!" the right leg is extended to the rear, the heels being together, and the toes apart at the same angle as at "attention." At "Position place—one!" the left knee is drawn up. At "two!" the knee is stretched and the right foot drawn up to the "Toe Standing" position. At "three!" the heels and arms are lowered to "attention." When this has been practised a few times it may be taken to the command, "Over-grip Arch Hanging-place!" omitting the numbers.

74. Exercise.—Over-grip Arch Hanging: Alternate Feet forward placing, with Head turning (Ov-gp Ar Hg: Alt F forw pl w Hd tn).

Commands. — Over-grip arch hanging — place! . . . Alternate feet forward placing, with head turning left (right) and right (left) to four (two) counts — one! . . . two! . . . three! . . . four! . . . (one! . . . two! . . .) (Right (left) foot backward and head forward—turn!) . . . Position—place! . . .

Remarks. — Over-grip Arch Hanging is performed as in

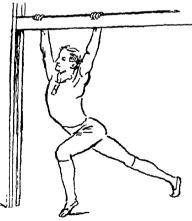


Fig. 121.

Exercise 73. At "one!" the left (right) foot is brought forward with the knee bent and toe on the ground, and the head turned to the left (right). At "two!" the leg is stretched backward and the head turned forward. At "three!" the right (left) foot is carried forward and

the head turned to the right (left); and at "four!" the leg is stretched backward and head turned forward again. When executed to two counts, at "one!" the left (right) foot is brought forward, and at "two!" the left (right) leg is stretched backward and the right (left) foot carried forward, the head being turned from the left (right) to the right (left) side. This may be repeated the required number of times to similar counts. The right (left) leg is finally stretched backward and "Position—place!" resumed.

75. Exercise.—Alternate-grip Arch (b) Hanging: Sideways travelling (Alt-gp Ar (b) Hg: Sdw trav). (W.B., Bm, P.B., H.B.)

Commands. — Alternate-grip arch hanging (left (right) hand under) — place! . . . Arms — bend! . . . Side travelling to the left (right)—commence! . . . Halt! . . . Arms—stretch! . . . Position—place! . . .

Remarks.—"Alternate-grip Arch Hanging" is taken as in Exercise 73, except that one hand is "under-grip." The arms are then bent, and at "commence!" the left (right) foot and left (right) hand are moved about 6 inches to the left (right), followed by the right (left) foot and hand moving a similar distance. This is repeated until "Halt!" is given. The arms are then stretched and "Position—place!" resumed.

# Summary

Methods of Progression.—3, 6, 8, 10, 12.

Apparatus.-W.B., Bm, P.B., H.B.

```
St (Ov Un Alt-gp): Ar Hg
Ar Hg (Ov Un Alt-gp): As bd
Ar (b) Hg (Ov Un Alt-gp): F forw pl (4-2)

Ar (Ar (b)) Hg (Ov Un Alt-gp): Sdw trav.
```

Subdivision 2.—The Weight of the Body supported by the Arms with or without the Thighs resting against the Apparatus

#### FRONT RESTS

- 76. Exercise.—Toward Standing: Spring to inward (over) (under) (alternate twisted) grip Front Rest (Tow St: Spg to inw (ov) (un) (alt tw) gp Fnt Rst). (Bm, H.B., P.B., H.)
  - Commands.—Inward-grip front rest by numbers—one! . . . two! . . . three! . . . Down—one! . . . two!
  - Remarks.—"Toward Standing" is taken one foot-length from the apparatus. At "one!" the heels are raised, "two!" the knees bent outward, and at "three!" the spring upward made and the grasp taken on the pommels with "inward" or "alternate twisted" grip (bar or beam "over," "under," or "alternate" grip) (see Figs. 123 and 125). At "Down—one!" the landing is made on the balls of the feet with the knees bent outward, at "two!" the knees stretched, and at "three!" the heels and arms lowered to "attention" When this has been practised a few times, it may be taken to the command, "Inward-grip front rest—up!... Down!" In the early stages of this exercise the hands may be placed on the apparatus at "one!"
- 77. Exercise.—Over-grip Front Rest: Turn between Hands to Half Crook (a) Sitting (Ov-gp Fnt Rst: Tn betw Hns to ½ Crk (a) Sitt). (Bm, H.B., P.B.)
  - Commands.—Over-grip front rest—up!... To half crook (a) sitting between the hands left (right)—turn!... To front rest—turn!... Down!...
  - Remarks.—The starting position is adopted as in Exercise 76, the arms being slightly more than the width of the shoulders apart. When turning to the left (right) the right (left) knee is drawn up and the thigh rested upon the beam (bar), the hands being released and stretched down at sides. To return the hands again grasp the

- apparatus in "over-grip," left (right) hand in front and right (left) hand in rear. The knee is then stretched and the turn made to the right (left). After repeating the exercise on the opposite side the dismount is also performed as in No. 76 at the command "Down!"
- 78. Exercise. Alternate-grip Front Rest: Turning outside Hands to Side Sitting (Alt-gp Fnt Rst: Tn outsd Hns to Sd Sitt). (Bm, H.B., P.B.)
  - Commands. Alternate-grip front rest (left (right) hand under)—up!... To side sitting outside hands, left (right)—turn!... To front rest—turn!... Hands change—grasp!... To side sitting outside hands, right (left)—turn!... To front rest—turn!... Down!...
    - Remarks.—After the starting position has been executed as in Exercise 76, the body is levered over away from the left (right) hand in "under-grip" and turned to the left (right) until the sitting position is assumed outside the right (left) hand. With a slight push of the hands the half left (right) turn is completed and the "Side Sitting" position reached. The arms are stretched to the sides unless a grip is mentioned in the exercise. To return, the hands are replaced in their positions and the Front Rest resumed. The hands are changed in two motions, the one in "under grip" being turned to "over-grip" and vice versa, after which the exercise is repeated on the opposite side. The dismount also follows No. 76.
- 79. Exercise.—Over-grip Front Rest: Sideways travelling with unning to Under-grip Back Rest (Ov-gp Fnt Rst: Sdw trav w tn to Un-gp Bk Rst). (Bm, H.B., P.B.)
  - Commands.—Over-grip front rest up!... To left, (right) sideways travelling with turning to under-grip back rest—commence!... Halt!... Down!...
    - Remarks.—After assuming the "Front Rest" as in Exercise 76, the body is turned half right (left) on the left (right) arm, and travelling in the named direction the right (left) hand grasps in "under-grip." The body is then turned a further half right (left) on the right (left)

arm, and "Over-grip Front Rest" is reached (see Fig. 122). This is continued until "Halt!" is given. The dismount also follows Exercise 76.

80. Exercise.—\* Over-grip Front Rest: Backward (forward) circling (Ov-gp Fnt Rst: Bkw (forw) circ). (Bm., H.B., P.B.)

Commands. -- Over-grip front rest—up!... Backward (forward) circle—go!... Down!...

Remarks.—This exercise is performed by swinging the legs forward and upward over the bar (beam) and allowing the body to turn over backward until it is again in

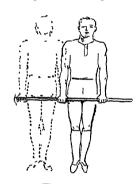


Fig. 122.

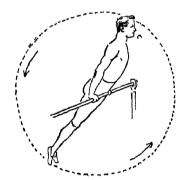


Fig. 123.

the "Front Rest" position. The arms pull in the whole time, and the hips are kept close to the bar (see Fig. 123). When this has been sufficiently practised, the circle may be performed with the body clear of the bar throughout, or the "Hand Rest" position may be reached. Several forms of dismounting will lend themselves to this exercise. (See also other exercises from "Front Rest.") In "Forward circling" the body moves around the bar head foremost, and when completing the circle it is important to place the hands on top of the bar, with the wrists and elbows well up.

81. Exercise.—Inward-grip Front Rest: Left (right) Leg feint circling (Inw-gp Fnt Rst: 1 (r) L fe circ). (H.) Commands. — Inward-grip front rest — up!... Left (right) leg, feint circle—swing!... To front rest—

swing!...Right (left) leg, feint circle—swing!...
To front rest—swing!...Down!...

Remarks.—The starting position is reached as in Exercise 76, and the "feint circle" performed by swinging the left (right) leg over the left (right) of the horse in the direction of a right (left) circle, without lifting the hand, and allowing the body to travel round with the swing, so that the weight is taken principally on the left (right) arm (Left (right) Feint Rest) (see Fig. 124). "Front Rest" is returned to by swinging the leg and carrying the body back to position. The exercise is

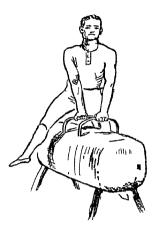


Fig. 124.

then repeated on the opposite side. If both legs are swung over, a "left (right) Double Feint Rest" is arrived at.

- 82. Exercise.—Inward-grip Front Rest: Knee between forward stretching (Inw-gp Fnt Rst: Kn betw forw str). (H.)

  Commands.—Inward-grip front rest—up!... Left (right) knee between forward—stretch!... Backward—stretch!... Backward—stretch!... Down!...

  Remarks.—The "Inward-grip Front Rest" is taken as in
  - Remarks.—The "Inward-grip Front Rest" is taken as in Exercise 76. At "between forward—stretch!" the knee is bent and stretched forward over the apparatus between the hands (Side Riding Rest). At "between backward—stretch!" the knee is bent between the hands and stretched backward over the apparatus. The movement is then repeated with the opposite leg, and the dismount performed as in No. 76. In "Knees between forward stretching" both knees are lifted and stretched forward (Back Rest).
- 83. Exercise.—Inward-grip Front Rest: Left (right) Leg halt circling (Inw-gp Fnt Rst: 1 (r) L ½ circ). (H.)

Commands. — Inward-grip front rest — up!... Left (right) leg, right (left) half circle—swing!... Left (right) half circle—swing!... Right (left) leg, left (right) half circle—swing!... Right (left) half circle—swing!... Down!...

Remarks.—"Inward-grip Front Rest" is reached as in Exercise 76. The left (right) leg is then swung over the left (right) of the apparatus in the direction of a right (left) circle, the left (right) hand being lifted and immediately replaced after the leg has passed, the body being kept square to the front

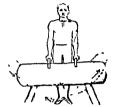


Fig. 125.

throughout (Inward-grip Side Riding Rest). The "Front Rest" is resumed by swinging the leg backward through left (right) half circle, and the exercise is repeated on the other side with the opposite leg. (See Fig. 125.) Legs half circling is performed on the same principle, both legs moving together. Half circles in the opposite direction may be made with one or both legs.

84. Exercise.—Inward-grip Front Rest: Left (right) Leg circling (Inw-gp Fn Rst: 1 (r) L circ). (H.)

Commands.—Inward-grip front rest—up!... Left (right)

Commands.—Inward-grip front rest—up!... Left (right) leg, right (left) circle—swing!... Right (left) leg, left (right) circle—swing!... Down!...

Remarks.—After the starting position has been assumed as in Exercise 76, the left (right) leg is swung over the left (right) of the horse in the direction of a right (left) circle, the left (right) hand being lifted and immediately replaced after the leg has passed. The swing is continued, and the leg carried over the right (left) of the apparatus, the right (left) hand being in turn lifted and replaced, allowing the leg to return to its original position. The body is kept square to the front throughout. Legs circling is performed on the same principle, both legs moving together. Circles in the opposite direction may be made with one or both legs.

85. Exercise.— Over-grip Front Rest: Short underswing to Stand (Ov-gp Fnt Rst: Sht un-swg to St). (H.B.)

Commands.—Over-grip front rest—up! . . . Short underswing to stand—down! . . .

Remarks.—The "Over-grip Front Rest" is taken as in Exercise 76. At "down!" the body is allowed to

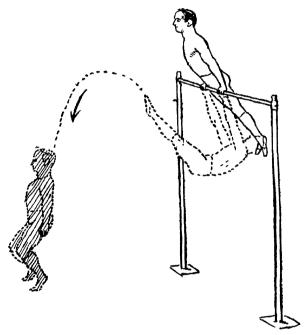
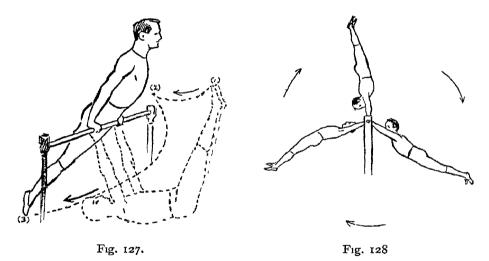


Fig. 126.

drop back with the arms straight, and the insteps, with legs straight, are brought to the bar. As the body swings forward the hips are straightened out, the hands released, and a landing made on the balls of the feet with the knees bent. The knees are then stretched and heels lowered. (See Fig. 126.)

86. Exercise.—\* Over-grip Front Rest: Short underswing with upstart (Ov-gp Fnt Rst: Sht un-swg w upst). (H.B.)

Commands.—Over-grip front rest—up! . . . Short underswing with upstart—go! . . . Down! . . . Remarks.—The starting position is taken as in Exercise 76. At "go!" the body is allowed to drop back and the insteps are brought to the bar as in No.85, but instead of arching the body and alighting the legs move slightly away from the apparatus, and a beat is made in which the insteps are again brought to the bar; the legs are then swung backward and with a pull of the arms the body is brought to the "Front Rest." The dismount may be made by pushing off backward or making a short underswing to ground. (See Fig. 127.)



87. Exercise.—\* Over-grip Front Rest · Backward long circle (Ov-gp Fnt Rst : Bkw lg circ). (H.B.)

commands.—With backward circle, over-grip front rest—up!... Backward long circle—swing!... Down!... Remarks.—The bar must be sufficiently high to permit of the toes clearing the ground in the "Over-grip Hanging." The "Front Rest" is assumed by a backward circle over the bar from the ground as described in Exercise 80, or by other methods, such as an "Upstart," etc. From this position, at "swing!" the legs and body are lifted well up behind, the arms being kept rigid, and backward circle is performed with the arms at full stretch, necessitating the hands being

changed and brought on top as the body is inverted above the bar in "Hand Rest" position. The movement is then checked, and "Front Rest" resumed. In the early stages it is advisable to allow the body to touch the bar when travelling over, or to clear it with arms bent. In this way the necessary confidence will be gained for the exercise with straight arms. Several continuous circles may be completed after some practice. (See Fig. 128.)

88. Exercise.—\* Under-grip Front Rest: Forward long circle (Un-gp Fnt Rst: Forw lg circ). (H.B.)

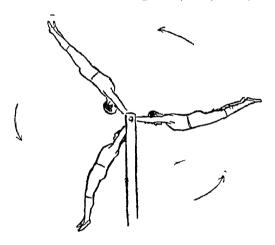


Fig. 129.

Commands.—With backward circle, under-grip front rest—up!... Forward long circle—swing!... Down!... Remarks.—This exercise is of similar type to No. 87, except that the circle is made in the opposite direction. From the "Under-grip Front Rest" the legs and body are swung up into the "Hand Rest" position, from which point the circle is commenced. It is difficult at first to return to the "Front Rest," and it may be necessary to alight when on the upward course, but with practice a series of continuous circles may be performed, and a suitable finish provided. (See Fig. 129.)

### Summary

Methods of Progression.—3, 4, 6, 7, 10, 11.
Apparatus.—Bm, H B., P.B., H.

Tow St (Inw Ov Un Alt Alt-tw-gp): Spg to Fnt Rst.

Fnt Rst ,,

(Hd tn.)
L sdw râis (fe circ).
Tn betw (outsd) Hns
to ½ Crk (a) Sitt.
Sd trav w tn.

\* Fnt Rst (Ov-gp): Bkw circ.

\* Fnt Rst (Un-gp): Forw circ.

Fnt Rst (Inw-gp): Kn (Kns) betw forw str. Fnt Rst (Inw Ov-gp): L (Ls) ½ circ (circ).

\* Fnt Rst (Ov Un-gp): Sht un-swg w upst.

\* Fnt Rst (Ov Un-gp): Bkw (forw) lng circ.

The position derived from any of these exercises may be used as a starting position for other exercises.

Unlimited combinations may be obtained in this way.

# BACK RESTS

89. Exercise.—Side Toward Standing: Spring to Inward (Over) (Under) (Alternate) (Alternate-twisted)-grip Back Rest: (Sd Tow St: Spg to Inw (Ov) (Un) (Alt) (Alt-tw)-gp Bk Rst). (H., P.B., Bm, H.B.)

Commands.—Inward-grip back rest by numbers—one! . . . two! . . . three! . . . Down by numbers—one! . . . two! . . . three! . . .

Remarks.—The "Side Toward Standing" position is taken up with the right (left) side toward about one foot-length from the apparatus. At "one!" the heels are raised and the right (left) hand grasps the left (right) pommel (bar) (beam) in "over-grip" At "two!" the knees are bent outward, and at "three!" the spring upward is made with a quarter left (right) turn, the left (right) hand grasping the other pommel, so that the "Back

Rest" is assumed with "inward-grip." On the bar or beam the hand will be in the "over-grip" Under-grip, alternate-grip, and alternate-twisted-grip follow the same principle. At "Down—one!" the legs are raised forward, and with a push off from the hands a landing is made on the balls of the feet with the knees bent. At "two!" the knees are stretched, and at "three!" the heels lowered. When this has been practised a few times it may be taken to the command, "Inward-grip back rest—up!...Down!"

- 90. Exercise.—Over-grip Back Rest: Turning between Hands to Half Crook (a) Sitting (Ov-gp Bk Rst: Tn betw Hns to ½ Crk (a) Sitt). (Bm, P.B., H.B.)
  - Commands.—Over-grip back rest—up!... To half crook

    (a) sitting, left (right) turn!... To back rest—

    turn!... To half crook (a) sitting, right (left)—turn!

    ... To back rest—turn!... Down!...
  - Remarks.—"Toward, Side Toward, or Back Toward Standing" is taken at the apparatus, and the "Back Rest" assumed with a spring (a ½ or ½ turn being necessary from the Toward or Side Toward Standing). The body is then lifted and turned a quarter left (right), the left (right) knee being bent and left (right) thigh rested on the bar or beam. To return to the "Back Rest," the body is again lifted and turned, and the knee straightened After the movement has been repeated on the opposite side, the dismount is made as in Exercise 89.
- 91. Exercise.—Under-grip Back Rest: Side travelling with turning inside Hands (Un-gp Bk Rst. Sd trav w tn insd Hns). (Bm, P.B., H.B.)
  - Commands.—Under-grip back rest up! . . . Side travelling to left (right) with turning inside hands—commence! . . . Halt! . . . Down! . . .
  - Remarks.—The starting position is reached as in Exercise 90, the hands being in "under-grip," and a quarter

turn made to left (right) to "Half Crook (a) Sitting." The right (left) hand is then placed beyond the left (right), shoulder width apart, and the body lifted and turned a further quarter left (right) into "Over-grip Front Rest." Another quarter left (right) turn follows, and the body is lifted with right (left) knee bent into "Half Crook (a) Sitting." Once more a quarter left (right) turn is executed, and the legs stretched to "Under-grip Back Rest." This movement is continued until "Halt!" is given, and at "Down!" the dismount is made as in Exercise 89.

- 92. Exercise.—Under-grip Back Rest: Side travelling with turning to Front Rest (Un-gp Bk Rst: Sd trav w tn to Fnt Rst). (Bm, H.B., P.B.)
  - Commands.—Under-grip back rest—up!... Side travelling to left (right) with turning to front rest—commence!... Halt!... Down!...
  - Remarks.—This is a similar exercise to No. 79, except that the starting position is changed.
- 93. Exercise.—Inward-grip Back Rest: Leg half circling with quarter turning (Inw-gp Bk Rst · L ½ circ w ½ tn). (H.)
  - Commands. Inward-grip back rest up!... Left (right) leg half left (right) circle with quarter left (right) turn—swing!... To back rest—swing!... Right (left) leg half right (left) circle with quarter right (left) turn—swing!... To back rest—swing!... Down!...
  - Remarks.—The starting position is assumed as in Exercise 89, and the left (right) leg is swung backward to the left (right) over the apparatus and a quarter left (right) turn of the body made, the left (right) hand being lifted and immediately replaced after the leg has passed over (Riding Rest). The movement is reversed to return to "Back Rest," and then repeated with the opposite leg A ½ left (right) circle with the right (left) leg may be made with a ¾ left (right) turn of body to the "Ride Sitting" position. This is known as a "forward screw

mount." For "backward screw mount" see Exercise 254

N.B.—Leg (legs) half circling (circling) is performed on the same principle as from "Front Rest."

94. Exercise.—\* Over-grip Back Rest. Short underswing with Legs between to Stand (Ov-gp Bk Rst: Sht un-swg w Ls betw to St).

Commands.—Over-grip back rest—up!...Short underswing with legs between to stand—down!...

Remarks.—The "Over-grip Back Rest" is taken as in Exercise 89. At "down!" the legs are raised forward and the body is allowed to drop backward, so that the legs pass between the hands under the bar. The remainder of the movement follows Exercise 85.

# Summary

Methods of Progression -3, 4, 6, 7, 10, 11.

Apparatus.—H., H.B., P.B., Bm.

Sd Tow St (Ov-gp): Spg w tn to Bk Rst. (Hd tn.

Bk Rst (Ov Un Inw) Tn betw Hns to ½ Crk
Alt Alt-tw-gp) (a) Sitt.

Sd trav w tn to Fnt Rst. BkRst (OvUn Inw-gp). Kn (Kns) forw bd: L

(Ls) forw rais.

Bk Rst (Inw-gp): Kn (Kns) betw bkw str.

Bk Rst (Ov Inw-gp) · L (Ls) ½ circ (circ). \* Bk Rst (Ov-gp) : Sht un-swg w Ls betw.

The postion any of these exercises may be used as a starting postion for other exercises.

Unlimited combinations may be obtained in this way.

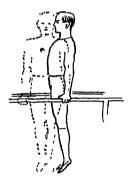
### BETWEEN RESTS

95. Exercise.—Between Standing: Spring to Inward-grip Between Rest (Betw St: Spg to Inw-gp Betw Rst) (P.B.)

- Commands.—Inward-grip between rest by numbers—one!...two!...Down by numbers—one!...two!...three!...
- Remarks.—The starting position is taken between the bars, and the remainder follows Exercise 76.
- 96. Exercise.—Inward-grip Between Rest: Turning to Overgrip Front Rest (Inw-gp Betw Rest: Tn-to Ov-gp Fnt Rst). (P.B.)
  - Commands.—Inward-grip between rest—up!...to over-grip front rest, left (right)—turn!...To between rest—turn!...To over-grip front

rest—turn ' . . . To over-grip front rest, right (left)—turn ! . . . To between rest—turn ' . . . Down ! . .

Remarks — "Inward-gnp Between Rest" is taken as in Exercise 76 At "left (right)—turn!" a quarter turn to left (right) is made, and the right (left) hand released and placed on the left (right) bar, so that the hands are in "over-grip" at shoulder width apart in "Front Rest." "Between Rest" is returned to by push-



F1g. 130

- ing off with the right (left) hand, and turning a quarter right (left) it re-grasps the right (left) bar The exercise is then repeated on opposite side, and the dismount made also as in Exercise 76. (See Fig. 130.)
- 97. Exercise —Inward-gup Between Rest: Forward and backward swinging to Half Crook (a) Outside Sitting (Inw-gp Betw Rst: Forw & bkw swg to ½ Crk (a) Outsd Sitt). (PB)
  - Commands.—Inward-grip between rest—up!. . Swinging to half crook (a) outside sitting on left (right) bar at end of second (third) forward swing—commence!...

    Down!...
  - Remarks.—"Inward-grip Between Rest" is taken as in Exercise 76. At "commence!" the legs are swung forward and backward, and forward to the "Half Crook (a) Outside Sitting" on the left (right) bar. The dis-

mount may be made from there by placing the right (left) hand on the bar in front of the right (left) knee and then pushing off to "Side Toward Standing," or the exercise continued by swinging the legs over and backward between the bars, forward, backward, and forward to the "Half Crook (a) Outside Sitting" on the other bar. This may be taken at the end or in the centre of bars.

- 98. Exercise.—Inward-grip Between Rest. Swing to Front Leaning Rest (Inw-gp Betw Rst: Swg to Fnt Ln Rst). (P.B.)
  - Commands.—Inward-grip between rest—up! . Swinging to front leaning rest at end of second (third) back swing—commence! . . . Down! . . .
  - Remarks.—" Inward-grip Between Rest" is taken as in Exercise 76. The legs are then swung forward, backward, forward, and backward, being parted on the last backward swing and the feet placed one on each bar. The dismount may be made by placing the right (left) hand on the left (right) bar in front of the left (right) hand and carrying the right (left) leg across so as to alight with "Horizontal Front Vault" movement
- 99. Exercise.—Inward-grip Between Rest Forward travelling with alternate Knee forward bending (Inw-gp Betw Rst: Forw trav w alt Kn forw bd) (P.B)
  - Commands.—Inward-grip between rest—up!... Forward travelling with alternate knee forward bending left (right) and right (left)—commence!... Halt!... Right (left) knee downward—stretch!... Down!...
  - Remarks.—" Inward-grip Between Rest" is taken as in Exercise 76. Forward travelling is commenced by moving the right (left) hand a short pace forward and bending the left (right) knee forward. This is followed by the left (right) hand moving another pace forward, the left (right) knee being stretched downward and the right (left) knee bent forward. The exercise is tinued until "Halt!" and then the bent knee is stretched downward, a landing being made also as in Exercise 76.

- 100. Exercise.—Inward-grip Between Rest: Forward and backward swinging with forward travelling on backward swing (Inw-gp Betw Rst: Forw & bkw swg w forw trav on bkw swg). (P.B.)
  - Commands.—Inward-grip between rest—up!...Swing-ing with forward travelling on backward swing—commence!...Halt!...Down!...
  - Remarks.—"Inward-grip Between Rest" is taken as in Exercise 76. At the end of each backward swing the hands are lifted and replaced a few inches forward until "Halt!" is given. The landing is made at the end of a backward swing, alighting as in Exercise 76, or with "Horizontal Front Vault" movement.
- ror. Exercise.—Inward-grip Between Rest: Leg right (left) circling left (right) bar (Inw-gp Betw Rst: Lr (l) circ l (r) bar). (P.B.)
  - Commands.—Inward-grip between rest—up!... Left (right) leg right (left) circle left (right) bar—swing!... Down!...
  - Remarks.—The left (right) leg is carried forward and then swung backward passing forward over the left (right) bar, the left (right) hand being lifted and replaced to allow the leg to pass over and back to its original position.

A left (right) circle with the left (right) leg over the left (right) bar is started by swinging the leg forward and over the bar, from whence it travels backward and over the bar again in the rear, back to its first position. A right (left) circle with the left (right) leg over the right (left) bar is performed by swinging the leg forward over the named bar and lifting the right (left) hand to enable the leg to complete its course back to the original position. Circles following this principle may also be executed from the "Riding Rest" and "Half Crook (a) Sitting."

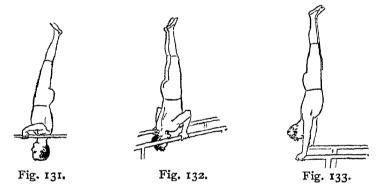
Exercise.—\* Inward-grip Between Rest: Legs right (left) circling left (right) bar (Inw-gp Betw Rst · Ls r (l) circ l (r) bar). (P.B.)

- Commands.—Inward-grip between rest—up!... Legs right (left) circle left (right) bar—swing!... Down!... Remarks.—As for Exercise 101, but with both legs instead of one.
- 103. Exercise.—Inward-grip Between Rest: Alternate Leg circling (Inw-gp Betw Rst: Alt L circ). (P.B.)
  - Commands.—Inward-grip between rest—up!... Swinging with left (right) and right (left) leg alternate right (left) and left (right) circling along right (left) bar on second (third) forward swing—commence!... Down!...
  - Remarks.—" Inward-grip Between Rest" is taken as in Exercise 76. On the second (third) forward swing the left (right) leg is passed across to the right (left) and swung backwards along the right (left) bar, the right (left) hand being lifted and replaced to allow it to pass, and the right (left) leg swings backward between the bars. Both legs meet above the right (left) bar at the end of the back swing, and swing forward, right (left) outside the bar and left (right) between, the right (left) hand being lifted and replaced to allow the right (left) leg to pass. The legs meet at the end of the forward swing and the circles are then repeated on the opposite side, or the dismount made with a vault. Intermediate swings may be inserted previous to performing the exercise on opposite side, or the circles may be continued straight away.
  - 104. Exercise.—Inward-grip Between Rest: Swinging with half turning (Inw-gp Betw Rst: Swg w ½ tn). (PB.)

    Commands.—Inward-grip between rest—up!... Swinging with half left (right) turn at end of second (third) forward swing—commence!... Down!...
    - Remarks.—"Inward-grip Between Rest" is taken as in Exercise 76. At the end of the second (third) forward swing the hands are lifted and a half turn to the left (right) made it is the the regrasping the bars as the legs are about to swing forward again. The exercise may be repeated a number of times. "Down!" is given at the commencement of the back swing, and the landing

made at the end of that swing as in Exercise 76, or with a vault.

105. Exercise.—\* Inward-grip Between Rest: Swing to Shoulder Rest (Inw-gp Betw Rst: Swg to Shd Rst). (P.B.) Commands.—Inward-grip between rest—up!... Swinging to shoulder rest at end of second (third) back swing—commence!... Forward—swing!... Down!... Remarks.—" Inward-grip Between Rest" is taken as in Exercise 76. At the end of the second (third) back swing the arms are bent so that the elbows move outwardly and the body is inverted, the weight being taken on the upper-arms near the shoulder, as in Fig. 131. At "Forward—swing!" the legs are swung forward



and arms stretched, the landing being made as in Exercise 76.

A forward roll to "Ride Sitting" (Forw rl to Rd Sitt) is made by rounding up the back so that the feet move towards the head, and then allowing the body to roll forward. At the same time the legs are separated so that they straddle the bars. The vertical position is stretched to immediately the legs touch the bars. For dismounts see various vaults.

106. Exercise.—\* Inward-grip Between Rest: Lift to Hand Rest (b) (Inw-gp Betw Rst: Lift to Hn Rst (b)). (P.B.) Commands.—Inward-grip between rest—up!... Lift to bent arm hand rest—up!... Forward—swing!... Down!...

Remarks.—The "Inward-grip Between Rest" is taken as in Exercise 76. At "up!" the legs and trunk are lifted backward and the arms are bent until the inverted position is reached as in Fig. 132. At "Forward swing!" the legs are swung forward and arms stretched, a landing being made as in Exercise 76, or with suitable vault.

Lifting to "Hand Rest" is performed in a similar manner, except that when the body is reaching the vertical position the arms are stretched. These exercises are very advanced, and should not be attempted until the "Hand Rest" position can be reached easily from a swing. (See Fig. 133.)

Summary
Methods of Progressive 3, 4, 5, 6, 7, 10. Apparatus.—P.B.

Betw St: Spg to Inw-gp Betw Rst.

Betw Rst | Hd tn. Kn (Kns) forw (bkw) bd: L (Ls) forw rais (w trav). | Forw & bkw swg | Forw & bkw swg to Sitt (½ Crk ½ Sitt) (Rid Sitt) (Fn Ln Rst) | Forw & bkw swg w trav (w ½ tn) | L (Ls) circ (alt circ) | \* Swg to Shd Rst (Hn Rst (b)) | (Hn Rst)

# FRONT LEANING RESTS

107. Exercise.—Toward Standing: Spring to Over-grip Front Leaning Rest (Tow St: Spg to Ov-gp Fnt Ln Rst). (H.) Commands.—Over-grip front leaning rest legs to the left (right) by numbers—one! . . . two! . . . three! . . . four!...Down — one!...two!...three!... four!...

Remarks — The "Toward Standing" position is taken up about one foot-length from the horse. At "one! "the heels are raised and the hands grasp the pommels with "inward-grip." At "two!" the knees are bent. At "three!" the spring upward is made and the left (right) leg raised sideways, the toe being placed on the horse. At "four!" a quarter right (left) turn is made, the left (right) hand transferred to the right (left) pommel (over-grip), and the right (left) foot placed with the left (right), the legs, body, and head being in line. At "Down—one!" the right (left) leg is swung upward. At "two!" the left (right) hand is released and a landing on the off side is made on the balls of the feet with the heels together and the knees bent outward. At "three!" the knees are stretched; and at "four!" the heels and arms lowered to "attention."

When this has been practised a few times it may be taken to the command, "Over-grip front leaning rest legs to the left (right) — up!... Down!" and the spring may be made so that both feet meet the horse simultaneously, the left (right) hand being transferred immediately after the spring.

108. Exercise.—Between Standing: Swing to Inward-grip Front Leaning Rest (Betw St · Swg to Inw-gp Fnt Ln Rst). (P.B.)

Commands.—Inward-grip front leaning rest by numbers—one!... two!... four!...

Remarks.—The starting position is taken between the

bars. At "one!" the heels are raised and the hands grasp the bars with "inward-grip." At "two!" the knees are bent. At "three!" the spring is made and the legs swung forward. At "four!" the legs are

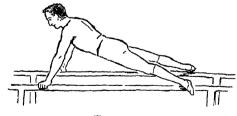


Fig. 134.

swung backward and separated so that the inside of the insteps rest on the bars, the legs, body, and head being in line. At "Down—one!" the legs are swung forward. At "two!" they are swung backward and the landing made on the balls of the feet with the heels together and the knees bent outward. At "three!" the knees are stretched; and at "four!" the heels and arms are lowered to "attention." When the exercise has been practised a few times it may be taken to the command, "Inward-grip front leaning rest—up!... Down!" omitting the numbers. (See Fig. 134.)

- 109. Exercise.—Inward-grip Front Leaning Rest: Alternate Leg and Arm raising (Inw-gp Fnt Ln Rst: Alt L & A rais). (P.B.)
  - Commands.—Inward-grip front leaning rest—up!...

    Left (right) leg and right (left) arm—raise!... Lower!

    ... Right (left) leg and left (right) arm—raise!...

    Lower!... Down!...
  - Remarks.—The starting position and dismount are performed as in Exercise 108. When the left (right) leg is raised backward the right (left) arm is raised upward to the side of the head with the palm of the hand inward.
- IIO. Exercise.—Inward-grip Front Leaning Rest: Alternate Leg raising with Arms bending (Inw-gp Fnt Ln Rst: Alt L rais w As bd). (P.B.)
  - Commands.—Inward-grip front leaning rest—up!...
    With alternate leg raising left (right) and right (left),
    arms bending by numbers, one!... two!... three!
    ... four!... Down!...
  - Remarks.—The starting position and dismount are executed as in Exercise 108. At "one!" the left (right) leg is raised backward and the arms bent. At "two!" the leg is lowered and arms stretched. At "three!" the right (left) leg is raised and arms bent; and at "four!" the leg lowered and arms stretched.

### Summary

Methods of Progression.—3, 6, 7, 10, 12. Apparatus.—H., P.B.

Tow St: Spg to Ov-gp Fnt Ln Rst
Betw St: Spg to Inw-gp Fnt Ln Rst
Inw-gp Fnt Ln Rst: As bd

N.B.—These exercises may also be included in the Abdominal group.

#### FRONT LEANING THIGH RESTS

Thigh Rest (Tow St: Spg to Frt Ln Th Rst). (P.B.)

Commands. — Front leaning thigh rest by numbers—

one!...two!...three!...Down by numbers—
one!...two!...three!...

Remarks.—The "Toward Standing" position is taken about one foot-length from the bars. At "one!" the heels are raised and the hands grasp the near bar in "over-grip." At "two!" the knees are bent outward. At "three!" the spring is made and the hands trans-

ferred to the off bar into the "Front Leaning Thigh Rest" position, the heels being together with the toes at the same angle as at "attention," and the legs, body, and head in line. The arms are straight, the width of the shoulders apart, and inclined slightly forward from the bars



Fig. 135.

to the shoulders. At "Down—one!" the hands push away from the bar and the landing is made on the balls of the feet with the knees bent outward and hands grasping the near bar. At "two!" the knees are stretched, and at "three!" the heels and arms lowered to "attention." When the exercise has been practised a few times it may be taken to the command, "Front leaning thigh rest—up!... Down!" omitting the numbers. (See Fig. 135.)

Half Circling (rear bar) (Ov-gp Fnt Ln Th Rst L ½ circ (rear bar). (P.B.)

Commands.—Over-grip front leaning thigh rest—up!...

Left (right) leg half right (left) circle—swing!...

Half left (right) circle—swing!... Right (left) leg half left (right) circle—swing!... Half right (left) circle—swing!...

Remarks.—The starting position and dismount are executed as in Exercise III. At "swing!" the left (right) leg is swung to the left (right) over the rear bar and between the bars in the direction of a right (left) circle. and is then returned again at "swing!" Following this the movement is repeated on the opposite side.

After the first half circle has been described, backward shear circles may be performed on the same principle as in Exercise 120. Leg circling follows as in Exercise 84.

# Summary

Methods of Progression.—6, 7, 10.

Apparatus.—P.B.

Tow St (sd): Spg to Ov-gp Fnt Ln Th Rst.

Ov-gp Fnt Ln Th Rst: Hd tn.

Ov-gp Fnt Ln Th Rst · L ½ circ (circ) (rear bar)
Ov-gp Fnt Ln Th Rst : L ½ circ (circ) (rear bar) w bkw shr circles.

### RIDING RESTS

113. Exercise.—\*Between Standing: Swing to Inward-grip Riding Rest (front) (Betw St: Swg to Inw-gp Rid Rst (fnt)). (P.B.) Commands.-Inward-grip riding rest

in front of hands by numbersone! . . . two! . . . three! . . . Down by numbers—one! . . . two! ... three!... four!... five!... Remarks.—At "one!" the heels are raised and the hands grasp the bars with "inward-grip." At "two!" the knees are bent; and at "three!" the knees are stretched quickly and legs swung forward, being separated at the

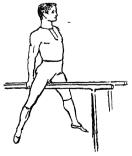


Fig. 136.

end of the swing and brought into position as shown in Fig. 136 To dismount, the legs are lifted off for-

- ward at "one!", swung backward at "two!", a landing made on the balls of the feet with knees bent at "three!"; the knees stretched at "four!" and heels and arms lowered to "attention" at "five!" When the exercise has been practised a few times it may be taken to the command, "Inward grip riding rest in front of hands—up!... Down!" omitting the numbers.
- II4. Exercise.—Inward-grip Toward Standing: Spring with Leg half circling and quarter turn to Over-grip Riding Rest (Inw-gp Tow St: Spg w L ½ circ & ¼ tn to Ov-gp Rid Rst). (H.)
  - Commands.—Inward-grip—grasp!... With half right (left) circle left (right) leg and quarter right (left) turn, over-grip riding rest—up!... Dismount to left (right) with backward swing of legs—down!...
  - Remarks.—As the spring is made, the left (right) leg makes a half right (left) circle and the body a quarter turn to the right (left), the left (right) hand being lifted as the leg passes over and replaced on the right (left) pommel in "over-grip." To dismount, the legs are swung backward, and a landing made on the left (right) side of horse.
- ing to Front Leaning Rest (behind): Legs swinging to Front Leaning Rest (Ov-gp Rid Rst (beh): Ls swg to Fnt Ln Rst). (H.)
  - Commands.—Over-grip riding rest facing left (right)—up!... With backward swing of legs, front leaning rest—place!... Down!...
  - Remarks—The starting position is taken as in Exercise 114, and the legs are swung backward as in the dismount, but the toes are placed on the horse with the heels together. To dismount, the left (right) leg is swung forward and backward, being joined by the right (left) at the rear and landing made on the right (left) of the horse.
- 126. Exercise —\*Riding Rest (front): Left and right Leg alternate right and left circling right bar (Rid Rst (fnt): 1 & r L alt r & 1 circ r bar). (P.B.)

Commands.—Left and right leg alternate right and left circling right bar—swing! . . .

Remarks.—The left leg is carried forward over the right bar, and simultaneously the right leg is swung forward, both legs meeting in front and above the right bar. The right leg passing underneath the left leg swings backward between the bars while the left leg swings backward outside the right bar, the right hand being lifted and replaced to allow the latter to pass. Both legs meet above the right bar in the rear, and the left leg, crossing under the right, swings forward between the bars to its original position, while the right leg travels on the outside of the right bar, the right hand being lifted and replaced so that it may reach the starting position. This exercise may be reversed for "Right and left Leg alternate left and right circling over left bar." Circles following this principle may also be performed from Half Crook (a) Sitting.

117. Exercise.—Over-grip Riding Rest (front); Front shear circle with half turn (Ov-gp Rid Rst (fnt): Fnt shr circ w ½ tn). (H.)

Commands.—Over-grip riding rest in front of hands—up!
... Front shear circle with half left (right) turn—
swing!... Down!...

Remarks.—"Toward Standing" is taken at the left (right) end of the horse, with left (right) hand on end, and right (left) hand grasping the pommel with "inward-grip." A spring is then made with a quarter left (right) turn of body and the right (left) leg is swung over the horse in the direction of a right (left) circle, the left (right) hand being lifted to allow the leg to pass, and replaced on the pommel in "over-grip." Front shear circle with half left (right) turn is performed by winging the legs forward, the right (left) passing over the left (right), a half left (right) turn being made as the legs are forward. The right (left) hand is simultaneous lifted from the pommel and replaced again as the movement is completed, the position reached being "Over-

grip Riding Rest (behind)." The dismount is made as in Exercise 114.

II8. Exercise.—\* Inward-grip Riding Rest (behind): Lift to Shoulder Rest (Inw-gp Rid Rst (beh): Lift to Shd Rst). (P.B.)

Commands.—Inward-grip riding rest behind the hands—up!...Down!...

Remarks.—The starting position is reached on the same principle as Exercise 108, except that when the legs are separated at the end of the back swing they are straddled over the bars behind the hands. To lift to the "Shoulder Rest" the arms are bent and the back rounded (or kept straight) and lifted. The upper-arms are then placed on the bars and the legs stretched to the inverted position. (See Fig. 131.) The dismount may be made by swinging the legs downward and forward, at the same time stretching the arms and alighting at the end of the back swing, or by returning to the "Riding Rest" and dismounting by swinging the right (left) leg over and landing on the left (right) side of the apparatus. "Hand Rest (b)" and "Hand Rest" are executed on the same principle.

# Summary

Method of Progression.—3, 4, 10.

Apparatus.—H., P.B.

\* Betw St: Swg to Rid Rst (fnt) (beh). Inw-gp Tow St: Spg w ½ tn to Rid Rst.

Rid Rst (Inw Ov Alt-gp): Ls swg to Fnt Ln Rst.

Rid Rst (Inw Ov Alt-gp): L(Ls) ½ circ (in) '-lu circ) (alt circ).

\* Inw-gp Rid Rst (beh): Lift to Shd Rst: Hn Rst (b) Hn Rst.

### RIDING SIDE RESTS

II9. Exercise.—Inward-grip Riding Side Rest: Alternate Knees between stretching (Inw-gp Rid Sd Rst: Alt Kns betw str). (H.)

Commands.—With half right (left) circle left (right) leg,

inward-grip riding side rest—up!... Alternate knees between stretching by numbers—one!... two!... Down!...

Remarks.—The starting position is taken by grasping the pommels with "inward-grip" and springing with half right (left) circle of left (right) leg. At "one!" both knees are drawn up and the left (right) one stretched backward behind the horse, and the right (left) forward in front of the horse. At "two!" the knees are drawn up and the left (right) stretched forward and the right (left) backward to the original position. The



Fig. 137.

dismount is executed by making a half left (right) circle of the left (right) leg and landing on the balls of the feet with the knees bent. The knees are then stretched and heels and arms lowered to "attention." (See Fig. 137.)

120. Exercise.—Inward-grip Riding Side Rest: Legs shear circling (Inw-gp Rid Rst: Ls shr circ). (H.)

Commands.—Inward-grip riding side rest—up!... Left (right) front (back) shear circle --wing'... Down!...

Remarks.—The starting position is taken as in Exercise 119. At "swing!" the legs are simultaneously circled, crossing one over the other when passing over the horse on either side, the hands being lifted to allow the legs to pass and immediately replaced. When the left (right) leg is behind in the "Riding Side Rest" only a front shear can be made over the left (right) side of the horse, the left (right) leg passing to the front (left (right) front shear). When the left (right) leg is in front in the "Riding Side Rest" only a back shear can be made over the left (right) side of the horse, the left leg passing behind (left (right) back shear). Several forms of dismount are available, the most simple form being the half circling of one leg, left or right, to the "Front" or "Back Rest," and then pushing off backward, or forward, with or without turnings

### Summary

Methods of Progression.—3, 4, 7, 10, 11.

Apparatus.-H., Bm, H.B.

Inw (Ov)-gp Tow St: L ½ circ to Rid Sd Rst.

Inw (Ov)-gp Rid Sd Rst Alt Kns betw str.
L (Ls) ½ circ (shr circ).

# Subdivision 3.—The Weight of the Body suspended by the Arms

121. Exercise.—Standing: Spring to Over (Under) (Alternate) (Inward)-grip Hanging (St: Spg to Ov (Un) (Alt) (Inw)-gp Hg). (Bm, H.B., H.L.)

Commands.—Over-grip hanging by numbers—one!...
two!...three!...Down by numbers—one!...
two!...three!...

Remarks.—The "Standing" position is taken directly under the apparatus. At "one!" the heels are raised. At "two!" the knees are bent. At "three!" the spring is made, the arms are swung forward and upward, and the hands grasp the bar (ladder) (beam) slightly more than shoulder width apart in "over-grip" (undergrip) (alternate-grip) (inward-grip). The heels are together, toes turned out, and legs, body, and head in line. At "Down—one!" the grasp is released, the arms are swung forward and downward, and the landing made on the balls of the feet with the knees bent outward. At "two!" the knees are stretched, and at "three!" the heels are lowered to "attention." When this has been practised a few times it may be taken to the command, "Over-grip hanging—up!...Down!" omitting the numbers.

122. Exercise.—\* Standing: Spring to Over (Under) (Alternate) (Inward)-grip (b) Hanging (St: Spg to Ov (Un) (Alt) (Inw)-gp (b) Hg). (Bm, H.B., H.L.)

Commands.—Over-grip bent arm hanging by numbers—

- one!...two!...three!...Down by numbers—one!...two!...three!...
- Remarks.—As for Exercise 121, except that the arms are bent when the grasp is taken, the forearm being at right angles to the upper-arm, which is in the same horizontal plane as the shoulders.
- 123. Exercise.—Over-grip Hanging: Forward and backward swinging (Ov-gp Hg: Forw & bkw swg). (H.B., Bm, H.L.)
  - Commands.—Over-grip hanging—up!... Forward and backward swinging—commence!... Down!...

    Remarks.—The "Over-grip Hanging" is taken as in
  - Exercise 121, and the forward and backward swinging is started by bending the arms and drawing the legs upward and forward, followed by a quick stretching of the arm and hip joints. The number of swings may be indicated beforehand or continued until the command "Down!" If the landing is to be made on the backward (forward) swing, "Down!" is given as that swing is started. In landing on the back swing it is necessary to wait until the backward movement is completed, and the hands should be released with a slight push away. Alighting on the balls of the feet with the body upright and the knees bent outward, the knees are stretched and the heels lowered to "attention." In landing on the front swing the legs are lifted and the body arched forward at the end of the swing, and with a slight fling the hands are released and arms swung forward and downward.
- 124. Exercise.—Inward-grip Hanging: Forward and backward swinging with assistance of Feet (Inw-gp Hg: Forw & bkw swg w asst of F). (R., P.R)
  - Commands.—Inward-grip—grasp!...Ready!...With assistance of feet, forward and backward swinging—commence!...Down!...
  - Remarks.—The "Inward-grip" is taken at the parallel ropes (rings). On the command "Ready!" the feet move backward until the "Toe Stand" position is

reached with the arms fully stretched, and at "commence!" a slight pull is made on the arms, together with pressure from the feet, and the body is swung forward. At about the vertical position a beat on the ground is made by the left (right) foot, followed by the right (left) foot, the latter immediately joining the former, and the whole body is flung forward. On the backward swing the beat is made with the right (left) foot followed by the left (right) foot, and after the joining of the feet the body is flung backward as far as possible. If the landing is being made at the end of the backward swing, the command "Down!" is given as that swing is commenced. At the end of the swing the body is straightened up, and the hands release their grasp as the next forward swing is about to be made. When the landing is made on the end of the forward swing, the command "Down!" is given as that swing is commenced. At the end of the swing the legs are raised slightly forward, followed by the lifting of the hips and arching of the trunk forward. The hands then release their grasp and are swung forward and downward, the landing being made on the balls of the feet with the knees bent outward. The knees are then stretched and the heels lowered to " attention."

125. Exercise.—Inward-grip Hanging · Forward and backward swinging with half turning (with assistance of Feet) (Inw-gp Hg: Forw & bkw swg w ½ tn (w asst of F). (R.) Commands —Withhalf left (right) turn on second and third forward swings—commence!... Down!...

Remarks.—The "Inward-grip Hanging" and the swinging are performed as in Exercise 124. At the end of the second forward swing the legs are thrown forward and the whole body turned half left (right), the rings (ropes) being crossed. This turn changes the next swing into a forward one, and a half right (left) turn is made, uncrossing the ropes. At "Down!" a landing is made as in Exercise 124.

- 126. Exercise.—\* Inward-grip Hanging Rise to Between Rest (Inw-gp Hg: Rise to Betw Rst). (R.)
  - Commands —Inward-grip—grasp! . . . Rise to between rest—up! . . . Down! . . .
  - Remarks.—After taking "Inward-grip," the arms are bent so that the hands are against the shoulders, the finger-tips being toward the body, the wrists and elbows are then lifted sideways and upwards, and the arms straight-ened to "Between Rest." At "Down!" the body is lowered to the standing position.
- 127. Exercise.—\* Inward-grip (b) Crook (a) Hanging. Alternate Arms sideways stretching with Head turning (Inw-gp (b) Crk (a) Hg Alt As sdw str w Hd tn). (R)
  - Commands.—Inward-grip—grasp!...Arms—bend!...

    Knees forward—bend!...Alternate arms left and right sideways stretching with head turning by numbers—one!...two!...three!...four!...Knees and arms stretch!...Down!...
  - Remarks.—After "Inward-grip" has been taken, the arms are bent and both knees bent forward. At "one!" the left arm is stretched sideways to the left and the head turned in the same direction. At "two!" the arm is bent and the head turned forward. At "three!" and "four!" the exercise is repeated with the right arm stretching and head turning to the right. The knees and arms are then stretched, and at "Down!" a landing is made as in Exercise 121.
- 128. Exercise.—\* Inward-grip Hanging Backward circle to Back Hang (Inw-gp Hg: Bkw circ to Bk Hg). (R.)
  - Commands.—Inward-grip hanging—up!...Backward circle to back hang—commence!...Forward circle—commence!...
  - Remarks.—The "Inward-grip Hanging" position is reached as in Exercise 121. To commence the circle the knees may be drawn up and the legs stretched so that they are over the head, or the legs may be keptstraight throughout and brought over the head. The whole body is then turned over backward, being straight-

ened as much as possible when lowering to the hang. To return, the hips are bent and the body rounded up, a strong pull being made by the arms as the first half of the forward circle is performed. The knees are stretched throughout. (See Fig. 138.)

129. Exercise.—\* Over (Under)-grip Hanging: Backward circle to Front Rest (Ov (Un)-gp Hg: Bkw circ to Fnt Rst). (H.B., P.B., Bm.)

Commands.—Over (under)-grip hanging—up!...Backward circle to front rest—up!...Forward circle to hang—down!...

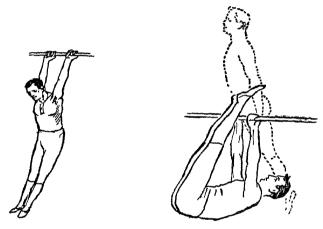


Fig. 138. Fig. 139.

Remarks.—The "Over-grip Hanging" position is reached as in Exercise 121. To commence the circle the knees may be drawn up and the arms bent, the legs are then stretched and body turned over backward so that the abdomen rests over the bar. From this position the back is straightened and the arms stretched to the "Front Rest." The forward circle is commenced by rounding the body forward, and grasping under the bar the legs are lifted and brought slowly forward. As the arms are stretched the body is lowered to the "Hang." The exercise may be performed later with the knees stretched throughout. (See Fig. 139.)

130. Exercise.—\* Over-grip Horizontal Hanging: Knee forward half circle to Ride Side Half Crook (a) Sitting (Ov-gp Hor Hg: Kn forw ½ circ to Rid Sd½ Crk (a) Sitt). (H.B.,Bm.) Commands. — Over-grip horizontal hanging left (right) knee between (outside)—up!... Knee forward half circle—swing!... Down!...

Remarks.—As the "Over-grip Hanning" is taken, the left (right) knee is drawn up under the bar and bent

over it as in Fig 140. At "swing!" the right (left) leg is swung backward and the body lifted to the "Ride Side Half Crook (a) Sitting." At "Down!" the body drops backward and the left (right) leg is withdrawn and stretched downward, a land-

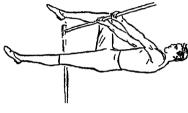


Fig. 140.

ing being made as in Exercise 121 at the end of the backward swing.

When this exercise is performed with a swing, both feet are brought to the bar at the end of the forward swing, the left (right) knee being bent and carried under it as the right (left) leg is swung backward to bring the body into position. From the "Ride Side Half Crook (a) Sitting" whole knee forward or backward circles may be described, "under-grip" being required for the forward movement.

131. Exercise.—\* Over-grip Hanging: Swinging with Leg for ward half circling to Ride Side Sitting (Ov-gp Hg: Swg w L forw ½ circ to Rid Sd Sitt). (H.B., Bm.)

Swg w L forw ½ circ to Rid Sd Sitt). (H.B., Bm.)

Commands.—Over-grip hanging — up! . . . With left (right) leg between, forward half circle on second (third) forward swing—commence! . . . Down! . . .

forward swing—commence!...Down!...

Remarks.—"Over-grip Hanging" is taken as in Exercise
121, and the swing carried out as in Exercise 123. As
the legs finish the second (third) forward swing the left
(right) leg is passed under the bar with a slight bending
and with quick stretching of the knee, the body simul-

taneously rises to the "Ride Side Sitting." At "Down!" the body drops back to the full extent of the arms and the leg is withdrawn, a landing being made at the end of the back swing. (See Fig. 141.) In "Legs forward circling to Side Sitting," both legs are passed under the bar.



i32. Exercise.—\* Over-grip Hanging: Swing with upstart to Front Rest (Ov-gp Hg: Swg w upst to Fnt Rst). (H.B.)

Fig. 141.

Commands.—Over-grip hanging—up!... With upstart on second (third) forward swing to front rest—commence!... Down!...

Remarks.—" Over-grip Hanging" is taken as in Exercise 121, and the swing carried out as in Exercise 123. At the end of the second (third) forward swing the body is arched forward and the legs quickly raised forward over the head, so that the insteps come to the bar. The arms then pull in and the legs are swung backward to the "Front Rest." The dismount may be performed by dropping back with the insteps to the bar and swinging forward, the arms are released and the body arched, a landing being made with the back to the bar (Short under-swing); or the underswing may be followed with a further swing backward, and a landing made at the end of the back swing.

133. Exercise.—\* Upper-Arm Hanging: Swing with upstart to Ride Sitting (Between Rest) (Up-A Hg: Swg w upst to Rid Sitt (Betw Rst)). (P.B.)

Commands.—Upper-arm hanging—up!... Upstart to ride sitting—swing!... Down!...

Remarks.—The Upper-Arm Hanging position (see Fig. 29) is taken in the centre of bars, and the legs are swung forward over the head, the hips being higher than the bars. A strong pull is then given with the arms and the hips are straightened so that the body rises above the bars into the Rid Sitt (Betw Rst) position. The exercise

may be taken also from Tow St at end of bars by springing in to Upper-Arm II: " and swinging straight away to the upstart. For dismount see Exercise II3 or "vaults."

134. Exercise.—\* Over-grip Hanging: Back rise to Front Rest (Ov-gp Hg: Bk rise to Fnt Rst). (H.B.)

Remarks.—"Over-grip Hanging" is taken as in Exercise 121, and the swing carried out as in 123. At end of first backward swing the body is held in a perpendicular position and lifted to the "Front Rest." The dismount is performed as in Exercise 132.

This Exercise may be performed from Up-A Hg to Rid Sitt (Betw Rst) on P.B.

135. Exercise.—\* Under-grip Hanging: Forward long circle with half turn to Over-grip backward long circle (Un-gp Hg: Forw lg circ w ½ tn to Ov-gp bkw lg circ). (H.B.)

Commands.—Under-grip hanging -- up'... Forward long circle with half left (right) turn to overgrip backward long circle — commence!...

Down!...

Remarks.—This is a very advanced exercise. After "Under-grip Hanging" has been taken, a very high swing is obtained, the legs and body being lifted on the back-

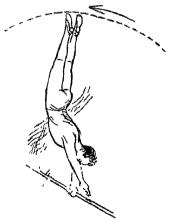


Fig. 142.

ward rise to the "Hand Rest" position. The circle forward is then performed, and as the body completes the circuit a half left (right) turn is made in the inverted position, bringing the hands in "over-grip". While the swing continues in the same direction the turn of the body changes it into a backward circle.

When again on top, the legs and body are brought down into the "Front Rest," and a dismount made as in Exercise 132, or a further movement performed. (See Fig. 142.)

# Summarv

Methods of Progression.—3, 4, 5, 6, 7, 10, 12.

Apparatus.—H.B., Bm, H.L., R., P.R.

St: Spg to Hg (Ov Un Alt Inw-gp).

(\* As bd (Hd tn). Hg (Ov Un Alt Inw-gp) {Forw & bkw swg (w tn). Kn (Kns) forw (bkw) bd: L (Ls)

forw rais (4-2).

1 Crk (a) Hg (Ov Un Alt Inw-gp): F bd & str.

<sup>1</sup>/<sub>2</sub> Spn (a) Hg (Ov Un Alt Inw-gp): Kn bd & str.

Hg (Ov Un Alt Inw-gp). Sd trav (w tn) (forw trav) (Rot trav).

\* Hg (Ov Inw-gp): Rise to Betw Rst (Fnt Rst).

\* Hg (Ov Inw-gp): Bk circ to Bk Hg (Bk Rst) (Fnt Rst) (Betw Rst).

\* Hor Hg (Ov Un Alt-gp): Kn forw ½ circ to Rid Sd Sitt (Rid Sid & Crk (a) Sitt).

\* Hg (Ov Un Alt-gp): Swg w L (Kn) Forw ½ circ to Rid Sd Sitt (Rid Sd & Crk (a) Sitt).

\* Hg (Ov Un Alt-gp): Swg w Ls (Kns) Forw ½ circ to Sd Sitt (Sd Crk (a) Sitt).

\* Hg (Ov Un Alt-gp): Swg w upst to Fnt Rst.

\* Up-A Hg: Swg w upst to Rid Sitt (Betw Rst).

\* Up-A Hg: Swg & rise at bk to Rid Sitt (Betw Rst).

\* Hg (Ov Un-gp) . Swg & rise at bk to Fnt Rst.

\* Hg (Un-gp): Swg & lng circ forw.

## Subdivision 4.—Climbing Exercises

136. Exercise.—Inward-grip Horizontal Hanging: Leg swinging (Inw-gp Hor Hg. L swg). (Bm, H.B.)

Commands.—Left (right) leg over inward-grip horizontal hanging—up!... Leg swinging by numbers—one! ... two!... one!... two!... Down!...

Remarks.—When the 'inward-grip' is taken the hands

are little more than the width of the shoulders apart, and if the left (right) hand is in front the left (right) leg is swung over the beam. (See Fig. 143.) At "one!" the left (right) leg is swung off and the right (left) leg swung over. This may be repeated a number of times, and later taken to the commands, "Leg swinging—commence!... Halt!... Down!"

137. Exercise.—Inward-grip Horizontal Hanging: Climbing Head first (Inw-gp Hor Hg: Clb Hd 1st). (Bm.)

Commands.—Left (right) leg over inward-grip horizontal

one!... two!... one!... two!... Down!... Remarks.—The "Inward-grip Horizontal Hanging" is taken as in Exercise 136. At "one!" the left (right) hand is moved backward, the distance between the hands being maintained. Simultaneously the right (left) leg is swung over close up to the right (left) hand, and the left (right) leg swung off. At "two!" the right (left) hand moves backward and the legs are changed. This is repeated until the required distance has been covered. At "Down!" the leg is swung off and the landing made. After some practice this exer-

cise may be carried out to the commands, "Head first climbing—commence! . . . Halt! . . . Down!"

138. Exercise.—\* Inward-grip Horizontal Hanging: Climbing Legs first (Inw-gp Hor Hg: Clb Ls 1st). (Bm.)

Commands.—Left (right) leg over inward-grip horizontal

hanging—up!...
Legs first climbing by numbers—
one!...two!...
Down!...

Remarks. — The "Inward-grip Horizontal Hanging" is taken

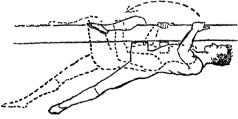


Fig. 143.

as in Exercise 136. At "one!" the right (left) hand is moved forward, the distance between the hands

being maintained. Simultancously the left (right) leg is swung off the beam and the right (left) leg swung over in front and close to the right (left) hand. At "two!" this is repeated with the left (right) hand and the left (right) leg, and so on until the reason in t covered. At "Down!" the leg is swung off the beam and the landing made. After some remains this exercise may be carried out to the commands, "Legs first climbing—commence! . . . Halt! . . . Down!" (See Fig. 143.)

139. Exercise.—Toward Standing: Alternate upward and downward climbing (Tow St: Alt upw & dnw clb). (W.L.)

Commands.—Alternate upward and downward climbing, left (right) foot and right (left) hand—one! . . . two! . . . Down—one! . . . two! . . .

Remarks.—The "Toward Standing" position is taken about one foot-length from the window ladder (vertical ladder). At "one!" the left (right) foot is placed on the first rung and the right (left) hand grasps the second rung. At "two!" the right (left) foot is placed on the second rung, and the left (right) hand grasps the rung next above that grasped by the right (left) hand. This action is repeated until the required height is reached. At "Down-one!" the left (right) foot and right (left) hand are lowered respectively two rungs, thus



missing the rung on which the right (left) foot and left (right) hand are placed. At "two!" the right (left) foot and left (right) hand are moved. (See Fig. 144.)

140. Exercise.—Toward Sitting: Horizontal Climbing Head first (Tow Sitt . Hor clb Hd 1st). (W.L.) Commands.—Toward sitting—place! . . . Head first to

the left (right) horizontal climbing by numbers-

one! . . . two! . . . one! . . . two! . . . Position place! . . .

Remarks.—After the "Toward Standing" position has been taken at the window ladder, the hands grasp the second rung. The left leg is passed over the first rung. followed by the right leg, and the "Sitting" position taken on the first rung. At "one!" the left (right) hand passes to the next square on the left (right) and grasps the same horizontal rung in "under-grip" close

to the vertical upright, and the right (left) hand reaches across and grasps at the far end of the same rung in "over-grip." At "two!" the body is pulled through into the second square by a twisting movement to the right (left). The right (left) hand is then in "undergrip," and the left (right) in "over-grip." The movement may be repeated into the third square by grasping



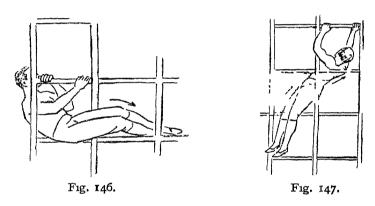
Fig. 145.

the next rung to the right (left) with the right (left) hand in "under-grip" close to the vertical upright, and the left (right) hand reaching across and grasping in "over-grip," the body being pulled through into the third square by a twisting movement to the left (right). Further repetition of this exercise will follow the same principle. At "Position—place!" the left leg is passed backward over the first rung, followed by the right leg, to the "Standing" position, and the hands are then lowered to "attention." (See Fig. 145.)

141. Exercise.—Toward Sitting: Horizontal climbing Legs first (Tow Sitt: Hor clb Ls 1st). (W.L.)

Commands.—Toward sitting position—place! . . . Legs first to the left (right) horizontal climbing by numbers -one! . . . two! . . . one! . . . two! . . . Position —place!...

Remarks.—The "Sitting" position is taken as in Exercise 140. At "one!" the left (right) hand grasps the rung in "over-grip" on the right (left) of the square, and the right (left) hand in "under-grip" on the left (right) of the square, the arm of the hand in "over-grip" being nearer the body. At "two!" the legs are raised slightly and bent towards the left (right), so that they enter the square next on the left (right). The body is then worked through by a twisting movement to the left (right) to the "Sitting" position in the next square on the left (right), the hands regrasping the next rung in "alternate cross-grip," with the right (left) hand over. The body is then carried into the third square in a similar



manner, and so on. "Position—place!" will follow as in Exercise 140. (See Fig. 146.)

142. Exercise.—Toward Sitting: Oblique upward climbing Head first (Tow Sitt: Obl upw clb Hd Ist). (W.L.) Commands.—Toward sitting position—place!... Head first to the left (right) oblique upward climbing by numbers—one!... two!... one!... two!... Remarks.—The "Sitting" position is taken on the first rung, and at "one!" the hands grasp the top rung of the square next above on the left (right) in "alternate cross-grip" right (left) hand over. At "two!" the body is pulled up into that square with a twisting movement to the right (left) until the "Sitting" position is

taken with the hands in "alternate-grip" left (right) hand over. At "one!" the "alternate cross-grip" is again taken on the top rung of the square next above to the right (left), the left (right) hand being over, and at "two!" the body is pulled through into that square. This may be further repeated to the required height. To return, "Toward High Standing" may be taken, and "Alternate downward climbing" adopted, or "Oblique downward climbing Legs or Head first" performed back to the original position. (See Fig. 147.)

143. Exercise.—Toward Sitting: Oblique downward climbing Legs first (Tow Sitt: Obl dnw clb Ls 1st). (W.L.)

Commands.—Toward sitting position—place!...Legs first to the left (right) oblique downward climbing by numbers—one!...two!...one!...two!...

Position—place! . . .

Remarks.—At "one!" "alternate cross-grip." is taken with the left (right) hand in over-grip. At "two!" the body is lowered through, by a twisting movement, into the square next below to the left (right). At "one!" the hands grasp in "alternate cross-grip" right (left) hand over, and at "two!" the body is again lowered by a twisting movement into the square next below on the right. This may be further

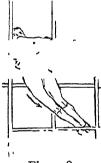


Fig. 148.

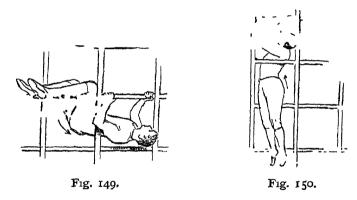
continued until the last square is reached. "Position—place!" will follow as in Exercise 140. (See Fig. 148.)

144. Exercise.—Toward Sitting: Oblique downward climbing Head first (Tow Sitt: Obl dnw clb Hd 1st). (W.L.)

Commands.—Toward sitting—place!... Head first to the left (right) oblique downward climbing by numbers—one!... two!... Position—place!...

Remarks.—The "Sitting" position is taken in the upper right (left) hand corner of the frame. At

"one!" the body is lowered into the hocks and the left (right) hand grasps the top rung of the square next below to the left (right) in "under-grip" close to the right (left) vertical upright, the right (left) hand reaching across and grasping in "over-grip" the farther side of the same rung. At "two!" the body is lowered through to "Sitting" position in the square next below on the left (right). At "one!" the body is lowered into the hocks and the right (left) hand grasps the next rung below close to the next vertical upright in "under-grip," and the left (right) hand reaches across and grasps the end of the rung in "over-grip." At "two!" the body is lowered through, with a twisting movement to the left (right), to the "Sitting"



position. This may be repeated until the last square is reached. (See Fig. 149.)

145. Exercise.—Toward Sitting: Vertical climbing Head first (Tow Sitt: Vert clb Hd 1st). (W.L.)

Commands.—Toward sitting position—place!... Head first vertical climbing by numbers—one!... two!... one!... two!...

Remarks.—The "Sitting" position is taken as in Exercise 142. At "one!" the hands grasp the top rung of the square next above in "alternate cross-grip" left (right) hand over. At "two!" the body is pulled up into the next square by a twisting movement to the left (right)

to the "Sitting" position. At "one!" the "alternate cross-grip" is taken with the right (left) hand over on the rung next above, and at "two!" the body is pulled up with a twisting movement to the right (left) to the "Sitting" position. This may be repeated until the desired height is reached. (See Fig. 150.) The return may be made by "Vertical downward climbing Legs first" as in Exercise 146.

146. Exercise.—Toward Sitting: Vertical downward climbing Legs first (Tow Sitt: Vert dnw clb Ls 1st). (W.L.)

Commands.—Toward sitting position—place!...Legs first downward vertical climbing by numbers—one!... two!...Position—place!...

Remarks.—The "Sitting" position

is taken in one of the upper squares. At "one!" the hands grasp in alternate cross-grip, left (right) hand over. At "two!" the body is lowered by a twisting movement to the left (right) into the square next below. At "one!" the "Sitting" position is then taken with "alternate cross-grip" with right (left) hand over, and at "two!" the body



Fig. 151.

is further lowered into the next square below with a twisting movement to the right (left). This is continued until the last rung is reached. "Position—place!" is as for Exercise 140. (See Fig. 151.)

147. Exercise.—Toward Standing. Prepare to climb (Tow St: Prep to clb). (V.R.)

Commands.—Prepare to climb by numbers—one!...
two!...three!...four!...Down—one!...

Remarks.—"Toward Standing" is taken at the rope. At "One!" the heels are raised and the left (sight) hand is stretched as high as possible and grasps the rope. At "two!" the right (left) hand grasps close to and

below the other hand. At "three!" the left (right) knee is drawn up so that the rope passes over the instep and up on the inner side of the knee. At "four!" the weight of the body is taken by the arms and the right (left) knee drawn up so that the rope is grasped between the feet and the inner side of the knees, the right (left) foot crossing over the left (right) foot. At "Downone!" the legs are released and the "Toe Standing" position resumed. At "two!" the heel and arms are lowered to "attention." (See Figs. 152–155.)

148. Exercise.—Toward Standing: Vertical climbing (Tow St: Vert clb). (V.R.)

Commands.—Vertical climbing by numbers—one!...
two!...three!...four!...Down by numbers
—one!...two!...

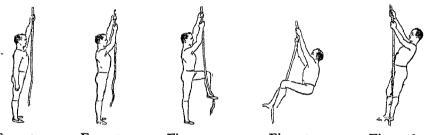


Fig. 152. Fig. 153. Fig. 154. Fig. 155. Fig. 156.

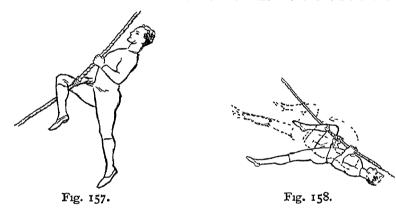
Remarks.—The "Toward Standing" position is taken at the rope, and the climbing position is assumed as in Exercise 147. At "one!" the right (left) hand is then moved a few inches above the left (right), followed by the left (right) hand at "two!" and again the right (left) hand at "three!" By this time the arms are bent with the hands in front of the chest and the legs stretched. At "four!" the knees are drawn up and the left (right) foot crossed over the right (left) foot. The action is then repeated to the same rhythm until the required height is reached. At "Down—one!" the right (left) hand passes below the left (right) hand, vice versa at "two!" and so on until near the ground, the knees being drawn up throughout.

The legs are then released, the balls of the feet being placed on the ground with the knees slightly bent, following which the knees are stretched and the heels and arms lowered to "attention." The exercise may be taken later to the command, "Upward and downward vertical climbing—commence!" (See Figs. 152–156.)

149. Exercise. Inward-grip Oblique Upward Hanging: Climbing Head first (Inw-gp Obl Upw Hg: Clb Hd Ist). (O.R.)

Commands.—Left (right) leg over inward-grip oblique upward hanging—up!... Head first climbing by numbers—one!... two!... one!... two!...

Down—one!... two!... one!... two!...



Remarks.—This is performed in a similar manner to Exercises 137 and 138. (See Fig. 157.)

150. Exercise.—\* Inward-grip Oblique Downward Hanging: Climbing Legs first (Inw-gp Obl Dnw Hg: Clb Ls 1st). (O.R.)

Commands.—Left (right) leg over inward-grip oblique downward hanging—up!. Legs first climbing by numbers—one!...two!...one!...two!...

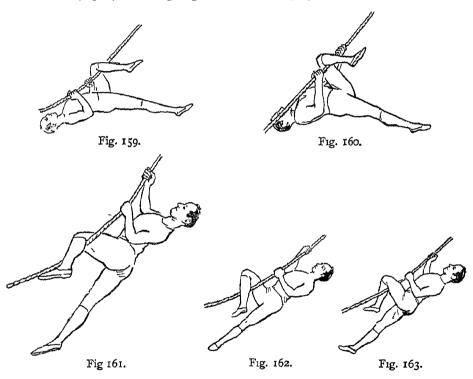
Down—one!...two!...one!...two!...

Remarks.—This movement follows Exercise 138 climbing up, and Exercise 137 climbing down. (See Fig. 158.)

Change to Inward-grip Oblique Downward Hanging: gp Obl Dnw Hg: Ch to Inw-gp Obl Upw Hg). (O.R.)

Commands.—Left (right) leg over inward-grip oblique downward hanging—up!... Change to inward-grip oblique upward hanging by numbers—one!... two!... three!... four!...

Remarks.—The "Inward-grip Oblique Downward Hanging" position is taken as in Exercise 136 (Head downward). At "one!" the body passes to the left (right) to a position at right angles to the rope, and the left (right) hand grasps in "under-grip" outside the left



(right) leg (Un-gp Hor Hg). At "two!" the body passes upward, and the right (left) hand grasps at shoulder width apart above the left (right) hand. At "three!" the left (right) leg is swung off the rope and the right (left) leg swung over. At "four!" the right (left) leg swings off and the left (right) leg swings over (Obl Upw Hg). From this position "Upward climbing Head first" may be carned out. (See Figs. 159–163.)

- 152. Exercise.—\* Inward-grip Oblique Upward Hanging:
  Change to Inward-grip Oblique Downward Hanging
  (Inw-gp Obl Upw Hg: Ch to Inw-gp Obl Dnw Hg).
  (O.R)
  - Commands. Left (right) leg over inward-grip oblique upward hanging up!... Change to inward-grip oblique downward hanging by numbers—one!... two!... three!... four!...
  - Remarks.—The "Inward-grip Oblique Upward Hanging" position is taken as in Exercise 136 (Head upward). At "one!" the body passes to the left (right) and the left (right) hand grasps in "under-grip" outside the left (right) leg (Un-gp Hor Hg). At "two!" the body passes downward and the right (left) hand grasps below the left (right) at shoulder width apart. At "three!" the left (right) leg is swung off and the right (left) leg swung over. At "four!" the right (left) leg is swung off and the left (right) leg swung over. "Downward climbing Head first" may be carried out from this position on the same principle as in "Horizontal Hanging: Climbing Head first."
- 153. Exercise.—\* Inward-grip Hanging: Upward and downward Hand climbing (Inw-gp Hg: Upw & dnw Hn clb). (P.R.)
  - Commands.—Inward-grip hanging up!... Upward and downward hand climbing—commence!... Halt!
  - Remarks.—"Inward-grip Hanging" is taken at the vertical, oblique, or parallel ropes. Upward climbing is performed by carrying the left (right) hand a few inches above the right (left) hand, followed by the right (left) hand above the left (right) hand, and so on until "Halt!" is given. Downward climbing follows in a similar manner, one hand grasping below the other.

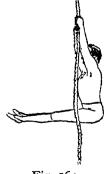


Fig. 164.

154. Exercise.—\* Inward-grip Spurn (a) Hanging: Upward and downward Hand climbing (Inw-gp Spn (a) Hg: Upw & dnw Hn clb). (V.R., P.R.)

Commands.—Inward-grip hanging—up! . . . Legs forward-raise! . . . Upward and downward hand climbing—commence! . . . Halt! . . . Down! . . .

Remarks.—After taking the "Inward-grip Hanging" the legs are raised to the horizontal position. (See Fig. 164.) Climbing then proceeds as in Exercise 153.

### Summary

Methods of Progression.—3, 4, 5, 7, 12.

Apparatus.—Bm, W.L., V.R., O.R., P.R.

Inw-gp Hor Hg: L swg; Clb Hd (Ls) 1st.

Tow St: Alt upw & dnw clb.

(Hor clb Hd (Ls) 1st.

Obl upw clb Hd 1st.
Obl dnw clb Hd (Ls) 1st.
Vert upw (dnw) clb.

Tow St: Prep for Vert clb; Vert clb.

Inw-gp Obl Upw (Dnw) Hg. Clb Hd (Ls) 1st.

- \* Inw-gp Obl Upw (Dnw) Hg: Ch to Obl Dnw (upw) Hg.
- \* Inw-gp Hg: Hn clb.
- \* Inw-gp Spn (a) Hg: Hn clb.

### BALANCE | XLRCISIS

#### FREE STANDING

(N.B.—See "Leg Exercises" for heels raising, and heels raising and knees bending.)

## KNEE BENDING AND LEG RAISINGS

155. Exercise.—Standing: Knee forward bending (St: Kn forw bd).

Commands.—Left (right) Knee forward — bend! . . . Downward—stretch! . . .

Kemarks.—The left (right) knee is bent forward until the thigh is at right angles to the trunk, and the lower leg

- at right angles to the thigh. The ankle is stretched with the foot pointing in the same direction as in "attention," and the knee turned slightly out  $(\frac{1}{2} \text{ Crk } (a) \text{ St})$ .
- 156. Exercise.—Yard (b) Standing: Knee forward bending with Arms flinging (Yd (b) St: Kn forw bd w As flg).
  - Commands.—Arms forward—bend!... With left (right) knee forward bending, arms (slowly)—fling!... With knee downward stretching, arms (slowly)—bend!... Arms downward—stretch!...
  - Remarks.—The arms are bent forward as in Exercise 64, and the flinging is performed in rhythm with the knee forward bending.
- 157. Exercise.—Reach Half Crook (a) Standing: Knee backward stretching with alternate Arms upward raising and lowering (Rch ½ Crk (a) St: Kn bkw str w alt As upw rais & low).
  - Commands.—Left (right) knee forward and arms forward —raise!... With knee backward stretching, left (right) arm upward and right (left) arm downward—lower!... With knee forward bending, left (right) arm forward lower and right (left) arm forward—raise!... With knee downward stretching, arms downward—lower!...
  - Remarks.—The knee and arms are raised slowly forward to arrive at the starting position. As the knee is stretched backward to the "½ Spurn (c)" position one arm is raised and the other lowered. It is immaterial which arm is raised or lowered, but the same knee may be stretched a second time with the opposite arm movement. The exercise is repeated in a similar manner on the other side.
- 158. Exercise.—Standing: Knee backward bending (St: Kn bkw bd).
  - Commands.—Left (right) knee backward—bend!...

    Downward—stretch!...
  - Remarks.—The lower leg only is bent backward until it forms a right angle with the thigh  $(\frac{1}{2} \text{ Crk } (b) \text{ St})$ .

- 159. Exercise.—Drag Half Crook (b) Standing: Knee forward bending with Arms forward and upward swinging (Dg ½ Crk (b) St: Kn forw bd w As forw & upw swg).
  - Commands.—With left (right) knee backward bending, arms backward—raise!... With knee forward bending, arms forward and upward—swing!... With knee backward bending, arms forward and backward—swing!... Knee and arms downward—lower!...
  - Remarks.—The knee is bent backward as in Exercise 158, and simultaneously the arms are raised backward. The knee is then brought forward to "Half Crook (a)" and the arms swung forward and upward to "Stretch," followed by the knee being returned to "Half Crook (b)" and the arms to "Drag." At "Knee and arms downward—lower!" the "attention" position is resumed.
- 160. Exercise.—Standing: Leg forward raising (St: L forw rais).
  - Commands.—Left (right) leg forward—raise!... Left (right) leg—lower!...
  - Remarks.—The left (right) leg is raised forward until it is as near the horizontal position as possible, the ankle being stretched and the foot turned out as at "attention" ( $\frac{1}{2}$  Spn (a) St).
- 161. Exercise.—Bend Standing: Leg forward raising with Arms sideways stretching and Head turning (Bd St: L forw rais w As sdw str & hd tn).
  - Commands.—Arms—bend!... With left (right) leg forward raising and arms sideways stretching, head to the left (right)—turn!... With leg lowering and arms bending, head forward—turn!... With right (left) leg forward raising and arms sideways stretching, head to the right (left)—turn!... With leg lowering and arms bending, head forward—turn!... Arms downward—stretch!...
  - Remarks.—The "Bend Standing" is taken as in Exercise 63. As the leg is raised slowly forward, the arms are stretched slowly sideways, and the head turned to the

- left (right). With the lowering of the leg the arms are bent and the head turned forward.
- 162. Exercise.—Standing: Leg sideways raising (St: L sdw rais).
  - Commands.—Left (right) leg sideways—raise! . . . Left (right) leg—lower! . . .
  - Remarks.—The left (right) leg is raised sideways as high as possible without allowing the trunk to lean toward the opposite side ( $\frac{1}{2}$  Spn (b) St).
- 163. Exercise.—Stretch Half Spurn (b) Standing: Arms forward and sideways swinging (Str ½ Spn (b) St. As forw & sdw swg).
  - Commands.—With left (right) leg sideways raising, arms upward—stretch!... Arms forward and sideways—swing!... Forward and upward—swing!... Feet together and arms—bend!... With right (left) leg sideways raising, arms upward—stretch!... Arms forward and sideways—wing!... Forward and upward—swing!... Feet together and arms downward—stretch!...
  - Remarks.—The "Stretch Half Spurn (b) Standing" is assumed in two motions, arms bending being followed by leg sideways raising and arms upward stretching. While the leg is maintained in this position the arms are swung forward and sideways in one motion, and forward and upward in another, the palms of the hands being turned when in the "Reach" position so that they are downward when the arms are sideways, and inward when upward.
- 164. Exercise.—Standing: Leg backward raising (St: L bkw rais).
  - Commands.—Left (right) leg backward—raise! . . . Left (right) leg—lower! . . .
  - Remarks—The left (right) leg is raised backward as far as possible without allowing the trunk to lean forward, the knee being kept straight, and the ankle stretched  $(\frac{1}{2} \text{ Spn } (c) \text{ St})$ .

165. Exercise.—Yard (b) Half Spurn (c) Standing: Arms flinging (Yd (b) ½ Spn (c) St: As flg).

Commands.—With left (right) leg backward raising, arms forward—bend!... Arms flinging by numbers—one!... two!... With arms downward stretching, feet change—place!... Arms flinging by numbers—one!... two!... Feet together and arms downward—stretch!...

Remarks.—As the leg is raised backward the arms are bent forward (see Exercise 64 for the arm movement). Arm flinging is then performed as in Exercise 57. The arm stretching downward with feet changing is executed in two motions, the feet being brought together and the arms stretched downward, followed by the other leg being raised and the arms bent forward.

# Summary

Methods of Progression.—3, 5, 6, 10, 11, 15.

# HORIZONTAL (a), (b), (c) Positions

166. Exercise.—Standing: Leg horizontally backward raising with Trunk forward bending (St: L hor bkw rais w T forw bd).

Commands.—With left (right) leg backward raising, trunk forward—bend! . . . Position—place! . . . (Feet change—place!).

Remarks.—The left (right) leg is raised backward while the trunk simultaneously bends forward, the raising leg and trunk being kept in line until the horizontal position is reached (Hor (a)  $\frac{1}{2}$  St). In changing from one foot to the other the "Standing" position firstly is resumed. (See Fig. 165.) (See also Dorsal Exercises.)

167. Exercise.—Standing: Knee bending with Leg horizontally backward raising and Trunk forward bending (St: Kn bd w L hor bkw rais & T forw bd).

Commands.—With left (right) leg backward raising and right (left) knee bending, trunk forward—bend! . . . Position—place! . . . (Feet change—place!).

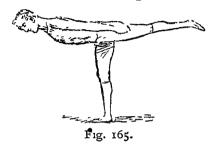




Fig. 166.

Remarks.—The right (left) knee is bent with the raising of the left (right) leg backward and trunk forward bending, until the horizontal position is reached (Hor (b) } St). In changing from one foot to the other the "Standing" position firstly is resumed. (See Fig. 166.) (See also Dorsal Exercises.)

168. Exercise.—Standing. Leg horizontally sideways raising, with Trunk sideways bending (St: L hor sdw rais w T sdw bd).

Commands.—With left (right) leg sideways raising, trunk to the right (left)—bend! . . . Position — place! . . . (Feet change—place!).

Remarks.—The left (right) leg is raised sideways, and at the same time the body is carried sideways to the right

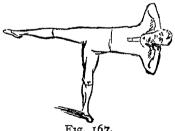


Fig. 167.

(left), the raising leg and trunk being kept in line until the horizontal position is reached (Hor (c)  $\frac{1}{2}$  St). (See Fig. 167.) (See also Lateral Exercises.)

169. Exercise.—Yard (b) Standing: Leg horizontally backward raising and Trunk forward bending with arms

- flinging (Yd (b) St: L hor bkw rais & T forw bd w As flg).
- Commands.—Arms forward—bend!... With left (right) leg horizontally backward raising and trunk forward bending, arms sideways (slowly)—fling!... (Slowly)—bend!... Arms downward—stretch!...
- Remarks.—After the arms have been bent forward the position is taken as in Exercise 166, the arms being flung slowly sideways in rhythm with the other part of the movement. When in position the arms should be horizontal, at right angles to the trunk. "Repeat with the right (left) leg (slowly) fling! . . . (Slowly)—bend!" saves repeating the whole command for the opposite side.
- 170. Exercise.—Bend Horizontal (b) Half Standing: Knee stretching with Arms upward stretching (Bd Hor (b) ½ St: Kn str w As upw str).
  - Commands.—With left (right) leg backward raising and right (left) knee bending, trunk forward and arms (slowly)—bend!... With right (left) knee stretching, arms upward (slowly)—stretch!... Knee and arms—bend!... With arms downward stretching feet change—place!... With left (right) knee stretching arms upward (slowly)—stretch!... Knee and arms—bend!... Position—place!...
  - Remarks.—The "Horizontal (b) Half Standing" position is taken as in Exercise 167, the arms being slowly bent at the same time. The bent knee is then slowly cretched to "Horizontal (a) Half Standing," and the arms stretched upward to the same rhythm. The knee and arms are again bent, and with the changing on to the opposite leg the arms are stretched downward and again bent. "Position—place!" is resumed in one motion by stretching (slowly) to "attention."
- zontally sideways raising with Trunk sideways bending and Arm upward stretching (½ Bd ½ Wg St: L hor sdw rais w T sdw bd & A upw str).

Commands.—Left (right) hand hip firm, and right (left) arm—bend!... With right (left) leg sideways raising, trunk to the left (right) bend and right (left) arm upward (slowly)—stretch!... (Slowly)—bend!... Arms change—place!... Repeat to the right (left) (slowly) — stretch!... (Slowly)—bend!... Arms downward—stretch!...

Remarks.—This exercise is performed on the same principle as Exercise 168, the single arm stretching being carried out on the upper side.

### Summary

Methods of Progression.—3, 5, 6, 10.

St: As in Wg Bd Dg Yd (b) Rst Yd Str: L hor bkw (sdw) rais w T forw (sdw) bd

St: As in Wg Bd Dg Yd (b) Rst Yd Str: Kn bd w L hor bkw rais w T forw bd

Hor (a, b, c) ½ St (As in Wg Bd Dg Yd (b) Rst Yd Str): A ex.

#### APPARATUS EXERCISES

## BALANCE STANDING AND MARCHING

172. Exercise — Side Toward Standing. Mounting to Yard Balance Standing (Sd Tow St: Mt to Yd Bal St). (Bch, Bm.)

Commands. — Mounting to yard balance standing by numbers—one! . . . two! . . . (—up!) . . . To left (right) sideways deep jump—down! . . .

Remarks.—The "Side Toward Standing" position is taken at the bench or beam at knee height. At "one!" the left (right) foot is placed on the apparatus. At "two!" the right (left) foot takes up its position about 18 inches in the rear and the arms are raised sideways to the "Yard." The "deep jump" to left (right) is made by swinging the left (right) leg sideways and following it immediately by the right (left), so that the heels meet in mid-air. As the landing is made on the balls of the feet with the knees bent, the arms are

lowered to the sides; the knees are then stretched, and the heels lowered to "attention."

After some practice the position is taken to the command, "Yard balance standing—up!"

- 173. Exercise.—Toward Standing: Mounting to Reach Balance Side Standing (Tow St: Mt to Rch Bal Sd St). (Bch, Bm.)
  - Commands.—Mounting to reach balance side standing by numbers—one!... two!... Forward (backward) deep jump—down!...
  - Remarks.—The "Toward Standing" position is taken up one short step from the bench or beam at knee height. At "one!" the left toe is placed on the apparatus. At "two!" the right foot takes up its position with the heels together and the arms raised forward. The "deep jump" is made by bending the knees and springing slightly upward and forward (backward), the hands being brought to the sides as the landing is made on the balls of the feet with the knees bent; the knees are then stretched and heels lowered. The "deep jump" also may be taken with left (right) foot leading, in which case the named foot is swung forward and the spring made off the other. Both legs meet in midair and the finish is as before.
- 174. Exercise.—Yard Balance Standing: Forward marching with Heels raising and Knees bending (Yd Bal St: Forw mch w Hls rais & Kns bd). (Bch, Bm.)
  - Commands.—Yard balance standing—up!...With heels raising and knees bending, forward—march!... Halt!...To left (right) sideways deep jump—down! Remarks.—The "Yard Balance Standing" may be reached by stepping or climbing on to the apparatus, or by springing (circling) to "Front Rest" and passing through "Half Crook (a) Sitting" or "Ride Sitting" positions. The heels raising and knees bending is then performed after each step is made. "Halt!" is given as the "Balance Standing" position is arrived at, and the "deep jump" made by swinging the left

(right) leg sideways when jumping to the left (right), the arms returning to the sides as the landing is made. When arm exercises are combined with the heels raising and knees bending, they follow as in "Leg Exercises"—i.e., when there are two movements of the arms and four with the feet, the former take place on the second and fourth counts, and when there are four with both arms and feet, the movements synchronise.

Further progression may be made by marching in the "Yard Spring (a) Balance Standing."

- 175. Exercise.—Bend Balance Standing. Forward marching with Arms sideways stretching (Bd Bal St: Forw mch w As sdw str). (Bch, Bm.)
  - Commands.—Bend balance standing—up!... With arms sideways stretching, forward—march!... Halt!
  - . . . To left (right) sideways deep jump—down! . . . Remarks.—The "Bend Balance Standing" position is assumed as described in the various methods of mounting (see Exercises 172, 183, and 184). At "march!" the left (right) foot is moved forward and the arms stretched sideways, followed by the right (left) foot and arms bending. This is repeated until "Halt!" is given, and the "deep jump" is made as in Exercise 172. A turn may be given before the "deep jump" is made, and the landing carried out by a forward (backward) deep jump.
- 176. Exercise.—Reach Balance Side Standing: Sideways marching with Arms parting (Rch Bal Sd St: Sdw mch w As part). (Bch, Bm.)
  - Commands.—Reach balance side standing—up!... With arms parting left (right) sideways—march!... Halt!... Forward (backward) deep jump—down!...
  - Remarks.—The "Reach Balance Side Standing" is assumed as described in Exercise 173. At "march" the left (right) foot is moved a pace sideways to the left (right) and the arms parted sideways to the "Yard" position, followed by the right (left) foot closing up and the arms returning forward to the "Reach" position

- This is repeated until "Halt!" is given. "Forward (backward) deep jump" is then made, the arms returning to the sides with the landing.
- 177. Exercise.—Yard (b) Balance Standing: Forward marching with Knee forward bending and Arms flinging (Yd (b) Bal St: Forw mch w Kn forw bd & As flg). (Bch, Bm.) Commands.—With arms forward bending, balance standing—up!... With knee forward bending and arms flinging, forward—march!... Halt!... To left (right) sideways deep jump—down!...
  - Remarks.—After the "Yard (b) Balance Standing" position has been taken as in Exercises 172, 183, and 184, the arms being in "Yard (b)," the knee of the rear leg is bent forward and the arms flung sideways. The foot is then placed down in front and the arms bent again. This is repeated with alternate knee forward bending until "Halt!" is given. The "deep jump" is as described in Exercise 172.
- 178. Exercise.—Balance Standing: Leg horizontally backward raising with Trunk forward bending and Arms sideways raising (Bal St: L hor bkw rais w T forw bd & As sdw rais). (Bch, Bm.)
  - Commands.—Balance standing—up!... With left (right) leg horizontally backward raising and trunk forward bending, arms sideways—raise!... Position—place!... Repeat with right (left) leg—raise!... Position—place!... To left (right) sideways deep jump—down!...
  - Remarks.—The "Balance Standing" is assumed as in Exercise 172, less the arm movement. At "raise!" the "Horizontal (a) Half Standing" position is taken, and the arms raised sideways. "Balance Standing" is resumed at "Position—place!" and the "deep jump" carried out as before.
- 179. Exercise.—Bend Horizontal (b) Half Standing: Arms upward stretching (Bd Hor (b) \( \frac{1}{2} \) St: As upw str). (Bch, Bm.)

Commands.—With arms bending, balance standing—up!
... With right (left) knee bending and left (right) leg horizontally backward raising, trunk forward—bend!
... Arms upward—stretch!... Arms—bend!... Position—place!... Repeat with right (left) leg—bend!... Arms upward—stretch!... Arms—bend!
... Position—place!... To left (right) sideways deep jump—down!...

Remarks.—"Bend Balance Standing" is adopted as in Exercise 172, and at "bend!" the "Horizontal () Half Standing" position is taken. At "stretch!" the arms are stretched slowly upward at side of head, returning at "bend!" while the starting position is resumed at "Position—place!" The "deep jump" is carried out as before.

### Summary

Methods of Progression —3, 4, 6, 7, 9, 10, 15. Apparatus.—Bm, Bch.

```
Sd Tow St: Mt to Bal St (As in Yd, Yd (b), Wg, Bd, Rst, Str)

Tow St: Mt to Bal Sd St (As in Rch, Yd (b) Wg, Bd, Rst, Str)

Hls rais & Kns bd.

A ex.

Tn.

L hor bkw rais w T

forw bd.

Bal Mch sdw.

Tn.

Kns bd.

Kns bd.

A ex.
```

Exercises in Front (Back) Rest and Sitting

# Front (Back) Rests

Exercises shown in "Front" and "Back Rest" of "Heaving Group" (Subdivision 2), when performed on the horizontal

bar, parallel bar, or beam, have also a strong balance effect, and may be placed in this division of "Balance Exercises" in addition to those shown below.

## Sitting

- 180. Exercise.—Yard (b) Side Sitting. Arms flinging with Head turning (Yd (b) Sd Sitt: As flg w Hd tn). (H.B., P.B., Bm.)
  - Commands. Side sitting up!... Arms forward bend!... With head left and right turning, arms flinging by numbers—one!... two!... three!... four!... Grasp!... Down!...
  - Remarks.— The "Side Sitting" is reached from "Toward Standing" by springing, or backward circling, to the "Front Rest," and turning between the hands through "Half Crook (a) Sitting." The latter may be taken also straight away from the "Toward Standing." At "Arms forward—bend!" the hands release their grasp of the beam or bar and are bent forward. The "Head turning and Arms flinging" are performed as



Fig. 168.

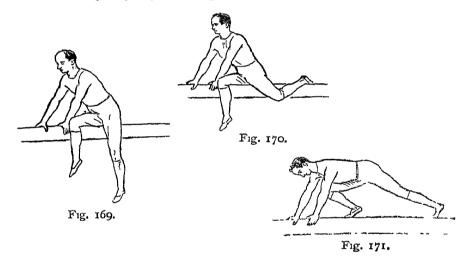
- in Exercise 57. At "grasp!" "over-grip" is taken, and at "Down!" the knees are stretched forward and the hands push off, the landing being made as for a "deep jump." (See Fig. 168.)
- 181. Exercise.—Wing Half Crook (a) Sitting: Quarter turn to Side Sitting (Wg ½ Crk (a) Sitt: ¼ tn to Sd Sitt). (H.B., P.B., Bm.)
  - Commands.—With left (right) knee bent, half crook (a) sitting—up!... Hips—firm!... To side sitting right (left)—turn!... Grasp!... Down!...
  - Remarks.—The "Half Crook (a) Sitting" is reached from the "Side Toward Standing" (Toward Standing), or by circling to the "Front Rest" and turning between the hands. "Hips—firm!" is then adopted, and at

"turn!" the left (right) knee is stretched and the body turned to the "Side Sitting." Half turns from the "Half Crook (a) Sitting" with left (right) knee bent may be taken also to "Half Crook (a) Sitting" with right (left) knee bent. Performed to numbers, the commands are as follows: "To side sitting turning by numbers. one! . . . two!" At "one!" the "Side Sitting," and at "two!" the "Half Crook (a) Sitting" is assumed. To dismount from "Side Sitting" at "Grasp!" "over-grip" is taken, and at "Down!" the landing is made by raising the legs slightly forward, and pushing off with the hands. If "Down!" is given in the "Half Crook (a) Sitting" with the left (right) knee bent, the left (right) hand grasps the beam or bar in front of the knee and the right (left) leg swings forward to meet the left (right) leg which is stretched, and the landing made with "Side Toward."

- 182. Exercise.—\* Yard Half Crook (a) Sitting. Alternate Leg swinging over (Yd ½ Crk (a) Sitt: Alt L swg ov). (H.B., P.B., Bm.)
  - Commands.—With left (right) knee bent, half crook (a) sitting—up!... Arms sideways—raise!... Alternate leg swinging over by numbers—one!... two!... Grasp!... Down!...
  - Remarks.—The "Half Crook (a) Sitting" is taken up as in Exercise 181, and at "raise!" the arms assume the "Yard" position. At "one!" the left (right) leg, and at "two!" the right (left) leg is swung over the apparatus, so that the "Half Crook (a) Sitting" with the right (left) knee bent is reached on the opposite side. The grasp and the dismount are as in Exercise 181.
- 183. Exercise.—Half Crook (a) Sitting: Backward mounting to Balance Standing (\frac{1}{2} \text{Crk (a) Sitt: Bkw mt to Bal St).}

  (Bm.)
  - Commands.—With left (right) knee bent, half crook (a) sitting—up!... To balance standing, backward mounting—up!... To left (right) sideways deep jump—down!...

Remarks.—After taking the "Half Crook (a) Sitting" with left (right) knee bent, as in Exercise 181, at "up!" the hands grasp with "inward-grip," left (right) hand forward in front of left (right) knee. The right (left) leg is then raised backward and the instep placed over the beam or bar, the knee being pressed well in. The body is then lifted with the hips up, and the left (right) toe placed on the apparatus close to the right (left) hand. Following this, the hands release their grasp, the left (right) knee and the body are stretched, the right (left) foot is placed on the beam or bar, and the



"Balance Standing" position is reached. The "deep jump" will be as in Exercise 172. (See Figs. 169–171.)

184. Exercise.—\* Yard Ride Sitting: Forward mounting to Balance Standing (Yd Rid Sitt: Forw mt to Bal St). (Bm.)

Commands.—Ride sitting—up!... To balance standing forward mounting—up!... To left (right) sideways deep jump—down!...

Remarks.—The "Ride Sitting" position may be taken from the "Toward Standing" by springing, or circling, to the "Front Rest," and passing one leg over the bar with a quarter turn of the body, or by taking "Hori-

zontal Hanging" and rising with "Knee Forward Half Circling" to "Half Crook (a) Ride Side Sitting," and by straightening the knee and making a quarter turn to "Ride Sitting." At "up!" the left (right) knee is bent forward and left (right) foot placed on the apparatus. The right (left) leg is raised forward and the instep fixed under the beam or bar. (See Fig. 172.) Following this, the body leans well forward, and the left (right) knee is stretched, and the right (left) foot is used to steady the

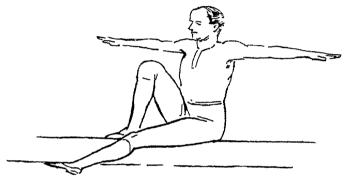


Fig. 172.

position, being placed in front of the left (right) foot as "Balance Standing" is reached. The "deep jump" will be as in Exercise 172.

### Summary

Methods of Progression.—3, 4, 7, 9, 10, 15. Apparatus.—Bm, P.B., H.B.

Sd Sitt (As in Rch, Yd, Yd (b), Wg, Bd, Rst, Str)  $\begin{cases} Hd \text{ tn.} \\ A \text{ ex.} \\ Tn. \end{cases}$ 

½ Crk (a) Sitt (\* Rid Sitt): Bkw (forw) Mt to Bal St.

#### LATERAL EXERCISES

#### TRUNK TURNINGS

185. Exercise.—Wing Close Standing: Trunk turning (Wg Cl St: Ttn).

Commands.—With feet closing, hips—firm!... Trunk to the left (right)—turn!... Forward—turn!... Right (left)—turn!... Forward—turn!... With feet opening, hands—down!...

Remarks.—If this exercise is taken on an incline, i.e. with an eighth left (right) turn, the trunk turning will bring the shoulders square to the original front or flank. The movement is made from the waist as far as possible.

186. Exercise.—Rest Ride Sitting: Trunk turning (Rst Rid Sitt: Ttn). (Bch.)

Commands.—Ride sitting—place!... Neck—rest!...

Trunk to the left (right)—turn!... Forward—turn!... Right (left)—turn!... Forward—turn!...

Hands—down!... Left (right) side toward position—place!...

Remarks.—The "Side Toward Standing "position is taken on the command, "At the benches left (right) side toward—fall-in!" The "Ride Sitting" is at first taken by numbers. At "one!" the left (right) foot is



Fig. 173.

passed over the bench to the "Stride Standing"; at "two!" the knees are bent and the "Sitting" position taken, and at "three!" the legs are stretched forward and feet fixed one over the other under the bench. Later these movements are performed judging the time on the word "place!" The "Neck Rest" position is taken at "rest!" and "trunk turning" carried out as in Exercise 185. At "down!" the arms are stretched down

to "attention," and at "place!" the left (right) "Side Toward Standing" position is resumed by unlocking the feet and drawing the knees up, stretching to the "Stride Standing" and passing the left (right) leg over the bench to "attention." (See Fig. 173.)

- 187. Exercise.—Half Bend Half Wing Walk (b) Standing:
  Trunk turning with Arm upward stretching (½ Bd
  ½ Wg Wlk (b) St: T tn w As upw str).
  - Commands.—Feet close and full—open!... Left (right) foot obliquely forward, left (right) hand hip firm, and right (left) arm—bend!... With right (left) arm upward stretching, trunk to the left (right)—turn!.. Forward—turn!... Feet and arms change—place!... With left (right) arm upward stretching, trunk to the right (left)—turn!... Forward—turn!... Feet together and arms downward—stretch!...
  - Remarks.—"Feet closing and full opening" will be as shown in Exercise 3. At "bend!" the left (right) foot is placed obliquely forward, the left (right) hand is placed on the hip, and the right (left) arm bent. The "trunk turning" is always made away from the rear foot and raised arm, as this increases the extent of the movement, and the "arm stretching" is performed slowly, being governed by "trunk turning." In "feet and arms changing" the left (right) foot is returned on the first count, and the right (left) foot placed forward and arms changed from "Wing" to "Bend" and "Bend" to "Wing" on the second count. The exercise is then carried out on the opposite side in a similar manner. In "Feet together and arms downward—stretch!" the foot is returned and the arms stretched simultaneously to "attention."
  - 188. Exercise.—Yard (b) Half Kneeling: Trunk turning with Arms flinging (Yd (b) ½ Kn: T tn w As flg).

    Commands.—Half kneeling on the left (right) knee and
    - Commands.—Half kneeling on the left (right) knee and arms forward—bend!... With arm flinging, trunk to the right (left)—turn!... Forward—turn!... Feet change—place!... With arm flinging, trunk to the

left (right)—turn!... Forward—turn!... Feet and arms in position—place!...

Remarks.—"Half Kneeling" is performed by carrying back the left (right) and bending the right (left) knee, the left (right) thigh being perpendicular and the right (left) thigh and leg forming a right angle to each other. The foot of the forward leg must be kept flat throughout. The "arm flinging" is performed slowly, being governed by the "trunk turning." The "feet changing" is carried out in two movements, the right (left) knee being placed on the ground, followed by the left (right) knee being raised. The "attention" position is resumed at "Feet and arms in position—place!" the knees being stretched, the rear foot drawn up, and the arms stretched downward.

189. Exercise.—Stretch Stride Kneeling: Trunk turning with Arms parting (Str Std Kn: T tn w As part).

Commands. —With stride kneeling, arms upward—stretch!
... With arms parting, trunk to the left (right)—turn!
... Forward—turn!... With arms parting, trunk to the left (right)—turn!... Forward—turn!... Feet and arms in position—place!...

Remarks.—The "Stride Kneeling and Arm Stretching" is made in two movements. The left knee is carried backward and slightly outward to the "Half Kneeling" position, knee turned out and the arms bent, followed by the right knee being carried backward and slightly outward and the arms stretched upward. The knees are about 12 inches apart, the heels together, and the toes turned out to the same angle as at "attention!" The "arm parting and trunk turning" are executed on the same principle as in Exercise 188. The position of "attention" is resumed by raising the left knee forward and bending the arms, followed by the right knee and arms stretching downward.

190. Exercise.—Yard Spurn (b) Foot Support Half Kneeling:
Trunk turning with Arms raising (Yd Spn (b) F Sup

½ Kn: T tn w As rais).

Commands.—With kneeling position, arms—bend!...

Left (right) foot sideways and arms sideways—stretch!
... With arms raising, trunk to the left (right)—turn!

Forward—turn!... With arms sideways stretching, feet change—place!... With arms raising, trunk to the right (left)—turn!... Forward—turn!... Feet and arms in position—place!...

Remarks.—The "Kneeling" position with "Arms bend" is made in two movements. The left (right) knee is carried backward as in "Half Kneeling," followed by the right (left) knee and bending of the arms (knees and heels together and toes at the same angle as at "attention"). At "Left (right) foot sideways and arms sideways—stretch!" the left (right) leg is extended and the arms stretched sideways. The "arms raising with trunk turning" is made away from the extended leg. "Arms sideways stretching with feet changing" is performed by returning to the "Kneeling" position with the extended leg and bending the arms, followed by the stretching of the right (left) leg and arms sideways. "Arms raising with trunk turning" is then executed on the opposite side. At "Position—place!" the extended knee is drawn forward to the "Half Kneeling" position and the arms bent, followed by the rear leg being brought up and the knees and arms stretched to " attention."

## Summary

Method of Progression.—I, 3, 4, 6, 10, II.

```
St (F in Cl, Wlk (a, b, c, d, e))
Rid Sitt
\frac{1}{2} \text{ Kn (Kn)} \qquad \qquad \qquad \text{(As in Wg, Bd, Yd (b), Rst,}
\frac{1}{2} \text{ Kn (Kn)} \qquad \qquad \qquad \text{Yd, Str)}: \text{ T tn (w A ex)}.
Spn (b) F Sup \frac{1}{2} Kn

Tn St (F in Cl, Wlk (a, b, c, d, e))
Rid Tn Sitt
\text{(As in Wg, Bd, Yd (b),}
Rst, Yd, Str): A ex.
Spn (b) F Sup Tn \frac{1}{2} Kn
```

#### SIDE BENDINGS AND FALLING

191. Exercise.—Rest Stride Standing: Trunk sideways bending (Rst Std St: T sdw bd).

Commands.—Feet astride and neck—rest!... Trunk to the left (right)—bend!... Upward—stretch!... Trunk to the right (left)—bend!... Upward—stretch!... Feet together and hands—down!...

Remarks.—The "Rest Stride Standing" position is adopted in two movements, the left foot being carried one foot-length to the left, followed by the right foot one foot-length to the right, and the arms bent to "Neck Rest." At "bend!" the chest is lifted and the body bent slowly sideways in the direction named, returning again at "stretch!" At "Feet together and hands—down!" the left foot is replaced one foot-length, followed by the right foot and arms stretching to "attention."

192. Exercise.—Bend Side Toward Thigh Support Standing:
Trunk sideways bending with arms upward stretching
(Bd Sd Tow Th Sup St: T sdw bd w As upw str). (Bm.)
Commands.—Arms — bend!... With arms upward
stretching, trunk to the left (right)—bend!... Upward—stretch!... With arms upward stretching
about—turn!... With arms upward stretching, trunk
to the right (left)—bend!... Upward—stretch!...
Arms downward—stretch!...

Remarks.—The "Side Toward Thigh Support" position is taken with the beam or bar at upper-thigh height to the command, "At the beam (bar) left (right) side toward—fall-in!" With the "Thigh Support" the "trunk bending" is carried out in a similar manner to "trunk bending" in "Free Standing," but by reason of the support, which is used as a fulcrum, the extent of the movement is increased. In "about turning with arms stretching upward," the arms are stretched as the pivot is made on the heel and toe, and bent again with the closing up of the rear foot.

1

- 193. Exercise.—Yard (b) Walk (b) Turn Standing: Trunk sideways bending with Arms flinging (Yd (b) Wlk (b) Tn St: T sdw bd w As flg).
  - Commands.—Feet close and full—open!... Left (right) foot obliquely forward and arms forward—bend!...

    Trunk to the left (right)—turn!... With arms flinging.slowly, trunk to the left (right)—bend!...

    Upward—stretch!... Forward—turn!... Feet change—place!... Trunk to the right (left)—turn!... With arms flinging, trunk to the right (left)—bend!... Upward—stretch!... Forward—turn!... Feet together and arms downward—stretch!... Feet close and—open!...
  - Remarks.—The trunk turning and bending is always made away from the rear leg. Before the turn is started there is a stretching in the direction of this leg, which is increased with the turn, and still further intensified by the side bending.
- 194. Exercise.—Half Stretch Half Wing Spurn (b) Foot Support Half Standing: Trunk sideways falling (½ Str ½ Wg Spn (b) F Sup ½ St: T sdw fl). (W.B., Bch, Bm, Liv.Sup.) Commands.—With left (right) foot support, right (left) hand hip firm and left (right) arm upward—stretch!... Trunk to the right (left)—fall!... Upward—raise!... Feet together and arms—bend!... With arms upward stretching, about—turn!... Right (left) foot support, left (right) hand hip firm and right (left) arm upward—stretch!... Trunk to the left (right)—fall!... Upward—raise!... Feet together and arms downward—stretch!...
  - Remarks.—The "Side Toward Standing" position is taken at the bench (wall-bars) (beam) (living support). One step sideways is then made and the foot supported at knee height. At "fall!" the trunk is lowered sideways until in line with the raised leg. When one arm only is stretched upward it is always on the opposite side to which the fall is made.
- 195. Exercise.—Bend Spurn (b) Foot Support Half Kneeling:

Trunk sideways falling with Arms upward stretching (Bd Spn (b) F Sup & Kn: T sdw fl w As upw str).

Commands.—Half kneeling on the left (right) knee place? Right (left) foot sideways and arms bend! . . . With arms upward stretching, trunk to the left (right) —fall!... Upward—raise!... Feet change—place! . . . With arms upward stretching, trunk to the right (left)—fall! . . . Upward—raise! . . . Feet and arms in position—place! . . .

Remarks.—The "Half Kneeling" on the left (right) knee is performed as in Exercise 188, and the right (left) leg is extended sideways and the arms bent. The trunk

is then lowered sideways to the left (right) into line with the right (left) the leg. and arms stretched upward. "Feet changing" is executed by kneeling on the right (left) knee and stretching the left

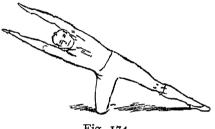


Fig. 174.

(right) leg side-ways. "Position—place!" is carried out in two movements, the left (right) knee being drawn up to "Half Kneeling," followed by both knees and arms being stretched and the rear foot being closed up to "attention." (See Fig. 174.)

196. Exercise.—Half Bend Half Wing Side Toward Thigh Support Standing: Trunk falling with Leg raising and Arm upward stretching ( Bd Wg Sd Tow Th Sup St: T fl w L rais & A upw str). (Bm.)

Commands.—Right (left) hand hip firm and left (right) arm—bend!... With leg raising and arm upward stretching, trunk to the right (left)—fall! . . . Upward —raise!... With arms changing, about—turn!... With leg raising and arm upward stretching, trunk to the left (right)—fall!... Upward—raise!... Arms downward—stretch! . . .

- Remarks.—The "Side Toward Thigh Support Standing" is taken close up to the beam (at thigh height), and the outside leg and arm are raised and stretched respectively as the trunk falls over the beam, the leg and trunk being horizontal.
- 197. Exercise.—Rest Thigh Support Horizontal (c) Half Standing: Leg lowering (Rst Th Sup Hor (c) ½ St: L low). (Bm.)
  - Commands.—Neck—rest!... With leg raising, trunk to the left (right)—fall!... Leg—lower!... Raise!... Trunk upward—raise!... Hands—down!...
  - Remarks.—After the "Rest Thigh Support Horizontal (c) Half Standing" position is reached, the leg is lowered and raised one, two, three times to word of command or numbers, followed by leg lowering and trunk raising.

# Summary

Methods of Progression.—1, 3, 5, 6, 9, 10, 11, 16.

Apparatus.—Bm, W.B., Bch.

St (F in Cl, Wlk (a, b, c, d, e)): (As in Wg, Bd, Yd (b), Rst, Yd, Str): T sdw bd w A ex.

Sd Tow Th Sup  $\frac{1}{2}$  St (As in Wg, Bd, Yd (b), Rst, Yd, Str): T sdw bd w A ex.

Spn (b) F Sup  $\frac{1}{2}$  St (As in Wg, Bd, Yd (b), Rst, Yd, Str) : T sdw fl w A ex.

Spn (b) F Sup ½ Kn (As in Wg, Bd, Yd (b), Rst, Yd, Str): T sdw fl w A ex.

Sd Bd St (F in Cl, Wlk (a, b, c, d, e)): (As in Wg, Bd, Yd (b), Rst, Yd, Str): A ex.

Sd Tow Th Sup Sd Bd St (As in Wg, Bd, Yd (b), Rst, Yd, Str): A ex.

Spn (b) F Sup Sd Fl ½ St (As in Wg, Bd, Yd (b), Rst, Yd, Str): A ex.

Spn (b) F Sup Sd Fl ½ Kn (As in Wg, Bd, Yd (b), Rst, Yd, Str): A ex.

Sd Tow Th Sup St (As in Wg, Bd, Yd (b), Rst, Yd, Str): L sdw rais w T fl w A ex.

Sd Tow Th Sup Hor (c)  $\frac{1}{2}$  St (As in Wg, Bd, Yd (b), Rst, Yd, Str): L low w A ex.

N.B.—"Side falling" exercises have been placed with "side bendings" on account of the similarity of type, but the muscular actions approximate very nearly to "side lunging" movements so far as the trunk is concerned.

#### SIDE LEANING RESTS

198. Exercise.—Front Leaning Rest: Turn to Half Wing Side Leaning Rest (Fnt Ln Rst: Tn to \frac{1}{2} Wg Sd Ln Rst).

Commands.—Front leaning rest—place!... With right (left) hand hip firm, on the left (right) hand—turn!... Forward—turn!... (Arms change—place!)... On the right (left) hand—turn!... Forward—turn!... Position—place!...

Remarks.—The "Front Leaning Rest" is adopted in two movements. On the first count, the knees are fully bent

and the hands placed the width of the shoulders apart on the ground close to the feet with the fingers pointing slightly toward each other and the elbows inside the knees. On the second

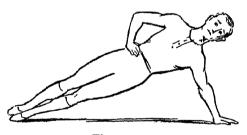


Fig. 175.

count, the legs are stretched to the rear so that the legs, trunk, and head are in line, the heels together, the feet at the same angle as at "attention," the hands being a little in advance of the shoulders. At "turn!" the body is turned and the weight taken on the left (right) arm, the right (left) hand being placed on the hip. In this position the right (left) foot is on top of the left (right) foot. (See Fig. 175.) "Arms change—place!" is executed to two counts, passing through the "Front Leaning

Rest" to the "Side Leaning Rest" on the other arm. "Front Leaning Rest" is taken up at "Forward—turn!" and "Position—place!" is resumed by drawing the knees up and recovering to the first position, followed by knees stretching to "attention"

199. Exercise.—Side Leaning Rest: Leg cideways and Arm upward raising (Sd Ln Rst: L sdw & A upw rais).

Commands.—On the left (right) arm, side leaning rest place! . . . Leg sideways and arm upward—raise! . . .

Lower! . . . Arms change place! . . . Leg sideways and arm upward — raise! . . . Lower! ... Position place!...

Remarks.—The "Side Leaning Rest" is assumed in three movements at "place!" (or to three counts), and the leg



Fig. 176.

and arm lifted and lowered at "raise!" and "lower!" "Position—place!" is executed in three movements. (See Fig. 176.)

## Summary

Methods of Progression.—5, 6, 10, 11, 12.

Fn Ln Rst: Tn to Sd Ln Rst (A in Wg Bd Rst Str).

Sd Ln Rst  $\begin{cases} A \text{ ex.} \\ L \text{ ex.} \end{cases}$ 

OBLIQUE FORWARD AND SIDEWAYS LUNGING For exercises in this subdivision see "Leg Exercises."

### ABDOMINAL EXERCISES

## Subdivision I

## Trunk Backward Bendings

For exercises in this subdivision see "Arch Flexions" in "Span Bend" group (page 78).

#### Subdivision II

KNEE FORWARD BENDINGS AND LEG FORWARD RAISINGS

- 200. Exercise.—Stretch Back Lying: Knee forward bending (4) (2) (Str Bk Ly: Kn forw bd (4) (2)).
  - Commands.—Back lying—place!...Arms upward—stretch!...Left (right) knee forward—bend!...

    Downward—stretch!...Right (left) knee forward—bend!...Arms downward—stretch!...Arms downward—stretch!...
  - Remarks.—The "Back Lying" position is reached in three movements: (I) the knees are fully bent to "Spring (b)," (2) the body falls back on to the hands and the legs are stretched forward to the "Sitting" position, and (3) the trunk is lowered backward. The "Knee forward bending" is performed by raising the left (right) knee until the thigh is perpendicular and the leg at right angles to it with the ankle stretched (Str 1/2 Crk (a) Bk Ly). When taken to four counts, the left (right) knee is bent at "one!" stretched downward at "two!" the right (left) knee bent at "three!" and stretched downward at "four!" When taken to two counts, at "one!" the left (right) knee is bent and at "two!" stretched downward, the right (left) knee being bent simultaneously. Finally the command is given, "Right (left) knee downward—stretch!" "Position—place!" is resumed by sitting up and placing the hands on the ground, pressing off with the hands and drawing the knees up, and stretching up to "attention." It may be done to three counts or to the word "place!"
- 201. Exercise.—Rest Half Crook (a) Back Lying. Knee forward stretching and lowering (Rst ½ Crk (a) Bk Ly: Kn forw str & low).
  - Commands Back lying—place! . . . Neck—rest! . . . Left (right) knee forward—bend! . . . Forward—stretch! . . . Lower! . . . Right (left) knee forward—

bend!... Forward—stretch!... Lower!... Hands—down!... Position—place!...

Remarks.—The "Back Lying" and "Knee forward bending" to "Half Crook (a) Back Lying" position is reached as in the previous exercise. The leg is then stretched forward to the perpendicular position and lowered slowly. "Position—place!" is resumed also as in the previous exercise. (See Fig. 177.)

202. Exercise.—Back Lying: Legs raising with Arms forward and upward raising (Bk Ly: Ls rais w As forw & upw rais).

Commands.—Back lying—place!... With legs raising, arms forward and upward—raise!... Legs and arms—lower!... Position—place!...

Remarks.—The legs and arms are raised slowly until the former are perpendicular and the arms at the sides of the head (Str Spn (a) Bk Ly). From this position "alternate left and right knee bending and stretching" to four or two counts may be

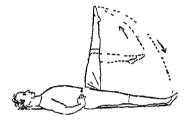


Fig. 177.

carried out. The remainder of the movement is as described in Exercise 200. Care should be taken to keep the lumbar region of the back straight throughout

## Summary

Methods of Progression.—2, 3, 4, 5, 6, 10, 12, 13.

\* Bk Ly (As in Wg Bd Rst Str): Kn (Kns) forw bd & str w A ex.

 $\frac{1}{2}$  Spn (a), (Spn (a)), Bk Ly (As in Wg Bd Rst Str): L (Ls) low w A ex.

Bk Ly (As in Wg Bd Rst Str): L (Ls) rais w A ex.

```
Bk (Betw) Rst: Kn (Kns) forw bd & str.
Bk (Betw) Rst: L (Ls) forw rais.
Ov (Un Alt Inw)-gp Hg: Kn (Kns) forw bd
& str
Ov (Un Alt Inw)-gp Hg: L (Ls) forw rais
```

#### Subdivision III

#### FRONT LEANING RESTS

203. Exercise.—Standing: Front Leaning Rest (St: Fnt Ln Rst).

Commands.—Front leaning rest—place!... Position—place!...

Remarks.—See Exercise 198.

204. Exercise.—Front Leaning Rest: Alternate Foot forward placing (4) (2) (Fnt Ln Rst: Alt F forw pl (4) (2)).

Commands.—Front leaning rest—place!... Alternate left and right foot forward placing by numbers—one!... two!... four!... Position—place!...

Remarks.—"Front Leaning Rest" is taken as in Exercise 198. At "one!" the left (right) knee is bent forward outside the elbow and the toe placed on the ground, at "two!" it is stretched backward, and at "three!" and "four!" the movement is repeated with the right (left) foot. When performed to two movements the position of the feet is changed on the second count—i.e. the left (right) leg is stretched backward and the right (left) foot placed forward.

205 Exercise.—Front Leaning Rest: Feet a red plant ? (Fnt Ln Rst. F astd pl).

Commands.—Front leaning rest — place!... With a jump, feet astride—place!... Feet together—place!... Position—place!...

- Remarks.—"Front Leaning Rest" is taken as in Exercise 198. At "With a jump, feet astride—place!" the feet are parted simultaneously the distance of two footlengths between the heels, being brought " 'c' c' at "Feet together—place!" When taken to numbers the command will be, "Feet astride placing by numbers—one!...two!" At "one!" the feet are parted, and at "two!" brought together.
- 206. Exercise.—Front Leaning Rest: Alternate Leg raising with Arms bending (Fnt Ln Rst: Alt L rais w As bd). Commands.—Front leaning rest—place!... Alternate left and right leg raising with arms bending by numbers—one 1... two!... four!... Position—place!...
  - Remarks.—"Front Leaning Rest" is taken as in Exercise 198. At "one!" the left (right) leg is raised backward and the arms bent so that the elbows move outwardly in line with the



Fig. 178.

- shoulders. At "two!" the leg is lowered and arms stretched. At "three!" and "four!" the right (left) leg is raised and lowered, and the arms bent and stretched. (See Fig. 178.)
- 207. Exercise.—½ Spurn (c) Front Leaning Rest: Arms bending with Head turning (½ Spn (c) Fnt Ln Rst: As bd w Hd tn).
  - Commands.—Front leaning rest—place!... Left (right) leg backward—raise!... With head left (right) turning, arms—bend!... With head forward turning, arms—stretch!... Left (right) leg—lower!... Right (left) leg backward—raise!... With head right (left) turning, arms—bend!... With head forward turning, arms—stretch!... Right (left) leg—lower!... Position—place!...
  - Remarks.—This exercise follows the same principle as No. 206, except that the leg is raised previous to the arms bending.

## Summary

Methods of Progression.—6, 9, 10, 16.

St: Fnt Ln Rst.

Hd tn.

F forw (astd) pl.

Fnt Ln Rst{L rais}

A rais with combinations.

These exercises are first performed with the hands resting at a height above the level of the feet, gradually working down until they are on the same level. Later the feet may be raised to heights above the level of the hands — See also exercises in heaving group, pages 117—119.

### Subdivision IV

## TRUNK FALLINGS

208. Exercise.—Bend Half Spurn (a) Foot Support Standing: Trunk falling (Bd ½ Spn (a) F Sup St. T fl). (W.B., Bm, Bch.)

Commands.—Left (right) foot support and arms—bend!
... Trunk backward—fall!... Upward—raise!...
Feet change—place!... Trunk backward—fall!...

Upward—raise!... Feet together and arms downward—stretch!...

Remarks—"Toward Standing" is taken on the command, "At the wall-bars (beam) (bench)—fall-in!" One step backward is then taken. At "bend!" the foot is placed on the apparatus at knee height and the arms bent. At "fall!"

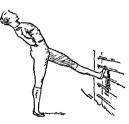


Fig. 179.

the trunk is lowered backward into line with the raised leg, and returned at "raise!" The feet are changed in two movements, and the trunk falling repeated. If single arm upward stretching is performed, the arm on the side of the raised leg is stretched, as this increases the tension by adding to the leverage. (See Fig. 179.)

- 209. Exercise.—Rest Toward Foot Support Crook (a) Sitting: Trunk falling (Rst Tow F Sup Crk (a) Sitt: T fl). (W.B. Bm, Bch.)
  - Commands.—Crook (a) foot support sitting—place!...

    Neck—rest!... Trunk backward—fall!... Up-ward—raise!... Hands—down!... Position—place!...
  - Remarks.—"Toward Standing" is taken one step backward from the wall-bars (beam) (living support). "Crook (a) Foot Support Sitting" is executed by bending both knees and sitting on the ground or bench with the legs at right angles to the thighs and the toes fixed (wall-bars) (beam) (living support). When sitting on the ground the heels are together and toes and knees apart, but when sitting on a bench the heels, toes, and knees are together, and the feet fixed as before. In "Trunk falling" the body, held straight, is allowed to fall from the hips to an angle of 45 degrees with the ground, or even as far as the horizontal position. It is then raised again and the arms stretched downward. The "Standing" position is resumed by placing the hands on the ground and drawing the legs backward, followed by stretching the knees to "attention."
- 210. Exercise Yard (b) Half Kneeling: Trunk falling with Arms flinging (Yd (b) ½ Kn: T fl w As flg).
  - Commands.—Half kneeling on the left (right) knee, and arms forward—bend!... With arms flinging, trunk backward—fall!... Upward—raise!... Feet change—place!... With arms flinging, trunk backward—fall!... Upward—raise!... Feet and arms in position—place!...
  - Remarks.—The "Half Kneeling" is taken as in Exercise 188 simultaneously with which the arms are bent forward to "Yard (b)" The trunk is allowed to fall backward to an angle of 45 degrees, while the arms are flung slowly sideways. The arms are then bent forward and the trunk raised. In "Feet changing" the forward knee is lowered to the ground ("Kneeling"), followed by

the raising of the rear knee. The "Trunk falling with Arms flinging" is then repeated. The "Standing" position is resumed by stretching the knees and arms, the rear foot recovering to "attention."

Arm upward stretching (½ Bd ½ Wg Fl ½ Kn: A upw str).

Commands.—With half kneeling on the left (right) knee, 'left (right) hand hip firm and right (left) arm—bend!...

Trunk backward—fall!... Right (left) arm upward—stretch!... Bend!... Trunk upward—raise!...

Feet and arms change—place!... Trunk backward—fall!... Left (right) arm upward—stretch!...

Bend!... Trunk upward—stretch!...

Bend!... Feet and arms in position—place!... Feet and arms

Remarks.—The "Half Kneeling" on the left (right) knee is taken as in Exercise 188, the left (right) hand being placed on the hip and the right (left) arm bent. The trunk is then lowered backward from the hips and held stationary at an angle of about 45 degrees. When in this position there is a very strong contraction of the



Fig. 180.

abdominal muscles on the side of the raised knee, and to increase this the arm on the same side is stretched upward, adding to the weight of leverage. The remainder of the exercise is carried out as in Exercise 210. (See Fig. 180.)

## Summary

Methods of Progression.—3, 5, 6, 10, 12.

```
½ Spn (a) F Sup St

½ Crk (a) F Sup St

Tow F Sup Stt

Kn (½ Kn) (Std Kn)

½ Spn (a) F Sup Fl St

½ Crk (a) F Sup Fl St

Tow F Sup Fl Stt

Tow F Sup Fl Stt

Fl Kn (Fl ½ Kn) (Std Fl Kn)

As in Wg Bd Yd (b) Hd tn

Rst Str (A ex)
```

## DORSAL EXERCISES (PREPARATORY)

(Preparatory Dorsal Exercises are the same as Preparatory Heaves.)

## DORSAL EXERCISES (TRUE)

#### STOOP STANDINGS

- 212. Exercise —Wing Walk (c) Standing: Trunk forward bending (Wg Wlk (c) St: T forw bd).
  - Commands.—Left (right) foot sideways and hips—firm!
    ... Trunk forward—bend!... Upward—stretch!...
    Feet change—place!... Trunk forward—bend!...
    Upward—stretch!... Feet together and hands—down!...
  - Remarks.—At "firm!" the left (right) foot is placed sideways (two foot-lengths between heels) and the hands placed on the hips. The chest is then lifted and trunk bent forward from the hips to an angle of approximately 45 degrees (Wg Stp (a) St). It is returned at "stretch!" the feet changed in two movements at "place!" and the exercise repeated on the opposite side.
- 213. Exercise.—Yard (b) Walk (a) Stoop (a) Standing: Alternate Arm flinging with Head turning (4) (2) (Yd (b) Wlk (a) Stp (a) St: Alt A flg w Hd tn).
  - Commands.—Left (right) foot forward, and arms forward—bend!... Alternate arm flinging with head left and right turning by numbers, four (two) counts—one!... two!... three!... four!... Trunk upward—stretch!... Feet change—place!... Trunk forward—bend!... Alternate arm flinging with head right and left turning by numbers—one!... two!... three!... four!... Trunk upward—stretch!... Feet together and arms downward—stretch!...
    - Remarks.—After the starting position has been taken, at "one!" the left arm is flung sideways and the head turned to the left. At "two!" the arm is bent and head turned forward. At "three!" the right arm is flung

sideways and head turned to the right At "four!" the arm is bent and head turned forward. When taken to two counts, at "one!" the left arm is flung sideways and head turned to the left; at "two!" the left arm is bent, the right arm flung sideways, and the head turned to the right. The command is then given "With right arm forward bending, head forward—turn!" Following this, the trunk is raised, the feet changed, trunk again bent forward, and the exercise repeated on the opposite side.

## Summary

Methods of Progression.—3, 5, 6, 9, 10.

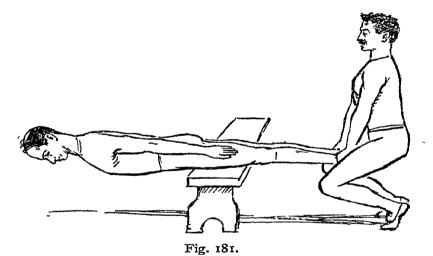
St: As in Wg Bd, Dg, Yd (b), Rst Yd Str; F in Cl, Wlk (a, b, c, d, e), T forw bd w A ex.

Stp St: As in Wg Bd, Dg, Yd (b), Rst Yd Str; F in Cl, Wlk (a, b, c, d, e), Hd tn w A ex.

#### FORWARD LYING

214. Exercise.—Standing · Forward Lying with Foot Support (St: Forw Ly w F Sup). (Bch, W.B., L.Sup.) Commands.—With foot support, forward lying-place! . . . On the hands—rest! . . . Position—place! . . . Remarks.—When this exercise is performed at the wallbars with the use of benches the latter are placed two foot-lengths from the former, and the "Standing" position is taken between them with the back toward the wall-bars. "Forward Lying" is assumed in four movements: (I) the knees are bent and the left hand placed on the bench; (2) the right hand is placed on the ground on the farther side of the bench; (3) the left hand is placed on the ground and the thighs rested across the bench with the knees just clear of the near edge; (4) the feet are fixed in the bars and the arms carried to the sides. When "living support" is applied at the benches, the supporting rank falls in behind the rank taking the exercise, and the supports (1) take a

step forward with the left foot, (2) close the right foot to the left, (3) bend the knees to "Spring (b)" and grasp the ankles of the front rank with the thumbs inside and fingers outside, and (4) the front rank carries the arms to the sides. Only sufficient pressure should be provided by the supports to keep the head, trunk, and legs in a straight line. At "On the hands—rest!" the hands are placed on the ground. "Position—place!" is returned to in three movements: (1) the front rank draws the right hand back on the ground and places the left hand on the bench, the supports stretching up to



"attention"; (2) the front rank places the right hand on the bench, and the rear rank steps backward with the left foot; (3) the front rank stretches up to "attention." The ranks then change place to four counts on the command, "Change—place!" At "one!" the front rank steps obliquely backward to the left with the left foot, and the rear rank obliquely forward to the right with the right foot. At "two!" the front rank draws the right foot and the rear rank the left foot up. At "three!" the front rank steps obliquely backward to the right with the right foot and the rear rank obliquely forward to the left with the left foot; and at "four!"

the change is completed by both ranks drawing up the remaining foot. (See Fig. 181.)

When this exercise is performed on the ground the front rank takes up the "Front Leaning Rest" to two movements, and lowers to the "Lying" position, carrying the arms to the sides on the third. The rear rank in this case raises the heels at "one!" and bends the knees and grasps the ankles at "two!"

- 215. Exercise.—Rest Forward Lying (Foot Support): Trunk backward bending (Rst Forw Ly (F Sup): T bkw bd). (Bch, W.B., L.Sup.)
  - Commands.—With foot support, forward lying—place!...

    Neck—rest!... Trunk backward—bend!... Forward—stretch!... On the hands—rest!... Position—place!...
  - Remarks.—The "Forward Lying" is executed as in Exercise 214, and after "Neck Rest" has been taken the trunk is arched backward, the chin being drawn in and the head carried backward with the trunk (Rst Ar Forw Ly). At "stretch!" the trunk is stretched to the horizontal position. "Position—place!" is resumed also as in Exercise 214.
- 216. Exercise.—Yard (b) Arch Forward Lying (Foot Support):
  Arms flinging with Head turning (Yd (b) Ar Forw Ly
  (F Sup): As flg w Hd tn). (Bch, W.B., L.Sup.)
  - Commands.—With foot support, forward lying—place!
    ... Arms forward—bend!... Trunk backward—
    bend!... Arms flinging with head left and right
    turning by numbers—one!... two!... three!...
    four!... Trunk forward—stretch!... On the hands
    —rest!... Position—place!...
  - Remarks.—This exercise is carried out on the same principle as Nos. 214 and 215. At "one!" the arms are flung and the head turned to the left, at "two!" the arms are bent forward and the head turned to the front, at "three!" the arms are flung and the head turned to the right, and at "four!" the arms are bent forward and the head turned to the front.

### Summary

Methods of Progression.—3, 5, 6, 10, 12.

Apparatus.—Bch w Liv.Sup or W.B.

St: Forw Ly.

Forw Ly As in Wg Bd Yd (b) Hd tn
Rst Str T bkw bd w A ex.
Ar Forw Ly ,, ,, Hd tn

Forward Lunging and Horizontal (a) and (b) Half Standing

See "Leg and Balance Groups" for commands and remarks.

# JUMPING

## HIGH JUMPING WITH STANDING START

- 217. Exercise.—Standing: Prepare to jump (St: Prep to jp).

  Commands.—Prepare to jump by numbers—one!...

  two!... three!... four!... five!...

  Remarks.—At "one!" the heels are raised, at "two!"
  - Remarks.—At "one!" the heels are raised, at "two!" the knees are bent, at "three!" the knees are quickly stretched and bent again as if making a jump and landing, but without the feet leaving the ground, at "four!" the knees are stretched, and at "five!" the heels are lowered to "attention."
- 218. Exercise.—Standing: Stride jumping (St: Std jp).

  Commands.—Stride jumping—commence!...Class—
  halt!...
  - Remarks.—A spring is made, and the legs separated so that in the landing they are about 2 feet apart. They are immediately brought together again, and the action repeated to a rhythm of about 180 a minute. The heels are raised throughout.
- 219. Exercise.—Standing: Upward jumping (St: Upw jp).

  Commands.—Upward jumping by numbers—one!...

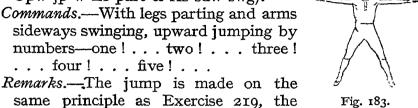
  two!...four!...five!...
  - Remarks.—The movement is similar to Exercise 217, except that at "three!" the whole body is stretched from head to toes and lifted as high as possible in the air, the landing being made on the balls of the feet, the ankle, knee, and hip-joints bending to break the fall. After some practice the exercise is executed to the word "go!" instead of by numbers. (See Fig. 182.)



220. Exercise.—Standing: Upward jumping with legs parting

and Arms sideways swinging (St: Upw jp w Ls part & As sdw swg).

Commands.—With legs parting and arms sideways swinging, upward jumping by numbers—one!...two!...three! . . . four! . . . five! . . .



same principle as Exercise 219, the legs being parted and arms swung

sideways as the "take off" is made, and brought into position again on landing. (See Fig. 183.)

# Summarv

Methods of Progression.—3, 4, 7, 10, 11, 12, 16.

St: Prep to Jp.

$$St \begin{cases} As \text{ in Bd Yd } (b) \begin{cases} Std Jp; Upw Jp; \\ Upw Jp w Ls flg; \end{cases} w A ex \end{cases} ov app.$$

N.B.—When the above jumps have been practised a few times to numbers, they may be performed judging the time to the command "go!"

HIGH JUMPING OVER APPARATUS WITH RUNNING START

221. Exercise.—Standing: (with a run) High Jump off left (right) Foot (St: (war) Hi Jp off 1 (r) F). (J.R., Bch, Bm.)

Commands.—Off left (right) foot, running high jump go!...Next-go!...

Remarks.—The "Standing" position is taken some distance from the apparatus, and the heels are raised prior to starting the run with the left foot. The steps are gauged so that the named foot for the "take off" arrives on a spot near the apparatus, a distance approximately equal to the height over which the jump is to be made. After the spring the legs are brought together so that they are practically horizontal The landing is made as in Exercise 219.

222. Exercise.—Standing: (with a run) High Jump off both Feet with Legs parting (St: (w a r) Hi Jp off both F w Ls part). (J.R., Bch, Bm.)

Commands.—Off both feet, with legs parting, running

high jump—go!...

Remarks.—After making the run, the "take off" for the jump is made from both feet, and the legs are parted as the body passes in a vertical position over the apparatus. The legs are then brought together again, and a landing made as in Exercise 219.

223. Exercise.—Standing: (with a run) High Jump off left (right) Foot with left (right) turning (St: (war) Hi Jp off 1 (r) F w 1 (r) tn). (J.R., Bch, Bm.)

Commands.—Off left (right) foot, with left (right) turn,

running high jump—go! . . .

Remarks.—The jump is made as in Exercise 221, and as the body passes over the apparatus a turn is made to the named side. When turning to the left (right) the "take off" is made from the left (right) foot.

224. Exercise.—Standing: (with a run) Hurdle Jump with Arms sideways swinging (St: (w a r) Hdl Jp w As sdw swg). (J.R., Bch.)

Commands.—Off left (right) foot, with arms sideways swinging, running

hurdle jump—go!...

Remarks. — A number of hurdles, benches, or other obstacles are arranged at equal distances apart so that one, two, three, or more steps may be taken between each. After the run a spring is made from the left (right) foot and the leg is stretched backward as the right (left) knee is bent forward. Simul-



Fig. 184.

taneously the arms are swung sideways, and with the landing on the right (left) foot the arms are brought to the sides. Intermediate steps follow, and another jump is performed in a similar manner over the next hurdle.

It is not necessary to take off the same foot each time, rather should the exercise be practised taking off left and right foot alternately. (See Fig. 184.)

## Summary

Methods of Progression.—7, 10.

St (w a r) Hi Jp w Ls part. Hi Jp w tn. Hi Jp w As sdw swg.

# LONG JUMPING WITH STANDING START

225. Exercise.—Standing: Forward jumping (St: Forw jp). Commands.—Forward jumping by numbers—one!... two!... four!... five!...

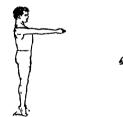


Fig. 185.



Fig. 186.



Fig. 187.



Fig. 188.

Remarks.—At "one!" the heels are raised and arms swung forward to "Reach," at "two!" the knees are bent and arms swung backward to "Drag," at "three!" the forward spring is made with arms forward swinging, and a landing executed on the balls of the feet with knees bent. Simultaneously with the landing the arms are swung backward. At "four!" the knees are stretched, and at "five!" the heels lowered to "attention." (See Figs. 185–188.)

226. Exercise.—Standing: Backward jumping (St: Bkw jp).

Commands.—Backward jumping by numbers—one!...

two!...three!...four!...five!...

Remarks.—At "one!" the heels are raised and arms swung backward to "Drag," at "two!" the knees are bent and arms swung forward to "Reach," at "three!" the spring backward is made with arms swinging backward, a landing being made as in Exercise 225. At "four!" the knees are stretched, and at "five!" the heels lowered to "attention."

227. Exercise.—Standing: Three steps and forward jump with left (right) turning (St: 3 steps & forw jp w l (r) tn).

Commands.—Three steps and forward jump with left (right) turn—go!...

Remarks.—If the turn is to be made to the left (right) the first step is taken with the left (right) foot, it being a rule that the "take off" must be from the foot on the side toward which the turn is performed. Should an even number of steps be desired, then the start will be from the opposite foot to which the turn is required. This will not, however, affect the "take off." The turn is executed during the course of the jump, and the landing, etc., is the same as for Exercise 225.

# Summary

Methods of Progression.—4, 10.

St (w I, 2, 3 steps): Forw (Bkw) Jp off 1 (r) (both) F.

St (w I, 2, 3 steps): Forw (Bkw) Jp w tn.

# LONG JUMPING WITH RUNNING START

Exercises under this heading will be carried out in the manner described in Exercises 225 and 227, except that a run will be made prior to a "single" take off.

# DEEP JUMPING WITH STANDING START

228. Exercise.—High Standing: Forward (backward) Deep Jump (Hi St: Forw (bkw) Dp Jp). (Bch, H., Bm.)

Commands.—Forward (backward) deep jump by numbers—one!... two!... five!... four!... five!... Remarks.—From the "High Standing" position on horse or other apparatus, at "one!" the heels are raised, at "two!" the knees are bent, at "three!" a spring slightly upward and forward (upward and backward) is made, landing on the balls of the feet with the knees bent, at "four!" the knees are stretched, and at "five!" the heels are lowered to "attention."

When taken with "arms swinging," the arms are swung in the named direction at the beginning of the

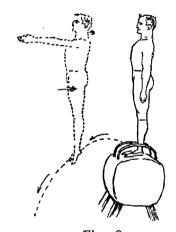


Fig. 189.



Fig. 190.

spring, and returned to sides as the landing is made. The "take off" may be made from one foot to the command, "With left (right) foot leading, forward (backward) deep jump—go!" The named foot is then swung forward and the spring taken off the right (left) foot, which immediately joins the left (right), and the landing is executed with both feet together. (See Figs. 189, 190.)

229. Exercise.—High Standing: Deep Jump with Legs parting and Arms sideways swinging (Hi St: Dp Jp w Ls part & As sdw swg). (Bch, H., Bm.)

Commands.—With legs parting and arms sideways swing-

ing, forward (backward) deep jump by numbers—one! . . . two! . . . three! . . . four! . . . five! . . .

Remarks.—The "Deep Jump" is made as in Exercise 228, except that with the spring at "three!" the legs are parted and arms swung sideways, being again returned with the landing. After practice a few times the word "go!" may be used as an executive instead of numbers.

## Summary

Methods of Progression —4, 7, 10. Apparatus —Bch, Bm, H., W.B.

$$St \begin{cases} Forw \ (bkw) \ (sdw) \ Dp \ Jp \ off \ l \ (r) \ (both) \ F \\ " & " & w \ Ls \ flg \end{cases} \\ w \ A \ ex.$$

# DEEP JUMPING WITH RUNNING START

230. Exercise.—Standing (with a run) Deep Jump off left (right) Foot with Arms forward and upward swinging (St: (war) Dp Jp off 1 (r) F w As forw & upw swg). (Bch, Bm.)

Commands.—With a run, deep jump off left (right) foot with arms forward and upward swinging—go! . . .

Remarks.—The bench is placed so that one end rests upon the beam and the other upon the floor. A run is made up the incline, and the "take off" executed from the left (right) foot, the arms being swung forward and upward. Immediately after the "take off" the left (right) foot joins the right (left), and as the landing is performed the arms are swung forward and downward to the sides. The knees are then stretched and heels lowered to "attention."

When "turning" is introduced, the "take off" is made from the foot on the side towards which the turn is required.

Methods of Progression.—Same as for Standing Deep Jumps.

# VAULTING

## BETWEEN VAULTING

- 231. Exercise.—Front Rest: Dismount with Legs backward swinging and quarter left (right) turning (Fnt Rst: Dsmt w Ls bkw swg & ½ 1 (r) tn). (H., Bm, P.B., H.B.)
  - Commands.—With a run, spring to front rest—go!...
    With, legs backward swinging and a quarter left (right)
    turn—down!...
  - Remarks.—The run terminates with a "double take off," after which the hands are placed on the apparatus and the "Front Rest" position taken. At "down!" the body is lowered with a slight bend of the arms and the legs moved slightly forward prior to swinging backward with a quick stretching of the arms and trunk. A landing is made on the balls of the feet with knees bent. The knees are then stretched and heels lowered to "attention."
- 232. Exercise.—With a run Between Vault to Kneeling: Knee Spring (w a r Betw V to Kn: Kn Spg). (H.)
  - Commands.—With a run, between vault to kneeling—go!... Knee spring—go!...
  - Remarks.—The run and spring are made as in Exercise 231, and the knees are drawn up so that the "Kneeling" position is reached between the hands on the horse (box). To execute the "Knee Spring" the arms are swung forward, backward, and forward, the spring accompanying the second swing forward of the arms. The landing is made as in Exercise 228.
- 233. Exercise.—With a run Between Vault to High Standing:
  Forward Deep jump (w a r Betw V to Hi St: Forw
  Dp jp). (H.)

Commands.—With a run, between vault to high standing—go!... Forward deep jump—go!...

Remarks.—The "Between Vault" is performed as in Exercise 232, except that the feet are placed on the apparatus between the hands, and the body is immediately stretched to the "High Standing." The "deep jump" is made as in Exercise 228.

234. Exercise.—With a run Between Vault to Back Rest:
Dismount with Legs forward swinging (w a r Betw
V to Bk Rst: Dsmt w Ls forw swg). (H.)

Commands.—With a run, between vault to back rest—go!... With legs forward swinging—down!...

Remarks.—After the "take off" both knees are drawn up and the legs passed over the apparatus, between the hands, and stretched to the "Back Rest" position (see Exercise 82). The legs are then swung forward and a dismount made as in Exercise 228.

235. Exercise.—With a run Between Vault (w a r Betw V). (H.)

Commands.—With a run, between vault—go! . . .

Remarks.—After the "take off" the legs are drawn up and stretched forward and downward as they pass between the hands. The latter are released almost simultaneously with the spring, or they may be allowed to retain their grasp until the legs are passed over the apparatus and then give a push off to assist the landing.

236. Exercise.—With a run
Between Vault with
after support (w a r
Betw V w aft sup).
(H., Bm.)

Commands.—With a run, between vault with after support—go!...

Remarks — The "take off" is made from the left (right) foot

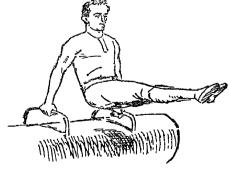


Fig. 191.

as for a "Running High Jump," but after the legs have passed over the apparatus the hands are placed on same and give a slight push to assist the movement. The landing is executed on both feet as in Exercise 228. When a quarter or half turn is added it is performed after the push off with the hands. (See Fig. 191.)

237. Exercise.—Front Leaning Thigh Rest: Between Vault (Fnt Ln Th Rst: Betw V). (P.B.)

Commands.—Front leaning thigh rest—up!... Over both bars, between vault—go!...

Remarks.—The "Front Leaning Thigh Rest" is taken as in Exercise III, and the "Between Vault" over both bars is performed by drawing the knees up quickly, and pressing away with the hands the legs pass over the bars. After clearing the second bar the legs are stretched, and a landing made as in Exercise 228.

When vaulting over one bar only, the knees are drawn up sufficiently to clear the bar and stretched again, a landing being made between the bars without the hands being moved.

238. Exercise.—Back Rest: Backward Between Vault (Bk Rst: Bkw Betw V). (H.)

Commands.—With a run, spring to back rest—go!...
Backward between vault—go!...
Remarks.—The "Back Rest" is taken as in Exercise 89,

Remarks.—The "Back Rest" is taken as in Exercise 89, only with a run. The vault is performed by drawing the knees up forward and stretching them backward over the apparatus, the landing being made with a slight push off from the hands.

239. Exercise.—With a run Backward Between Vault (w a r Bkw Betw V). (H.)

Commands.—With a run, backward between vault—go!...

Remarks.—After the run and spring the left (right) hand is placed on the right (left) pommel, and a half right (left) turn made as the knees are drawn up. The right (left) hand then grasps the opposite pommel as

the legs are stretched to the rear, and a landing is executed with a slight push off from the hands.

240. Exercise. -\* With a run Hand Rest: Between Vault (war Hn Rst: Betw V). (H.)

> Commands.—With a run, spring hand rest-go! . . . Between vault—go! . . .

Remarks.—The run is terminated with a "double take off," and the legs are lifted (being kept together and stretched) to the "Hand Rest." From this position a smart push off is made with the hands, the head and body are thrown backward, and the legs are brought down with knees bent (straight), a landing being executed on the balls of the feet with the knees bent.

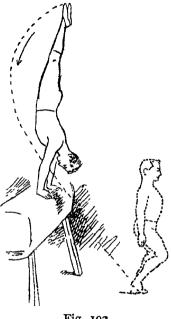


Fig. 192.

They are then stretched and the heels lowered to "attention." (See Fig. 192.)

## Summary

Methods of Progression.—3, 4, 7, 10.

Apparatus.-H., Bm, P.B., H.B.

Fnt Rst: Dismt w L bkw swg

Fnt Rst: Betw V.

Fnt Ln Th Rst: Betw V.

(Betw V to Kn & Kn spg St (w a r)

Betw V to Hi St & Dp Jp

Betw V to Bk Rst & Dp Jp

Betw V (w aft sup)

Bkw Betw V. \* Hn Rst & Betw V.

#### HORIZONTAL VAULTING

### HORIZONTAL FRONT VAULTS

- 241. Exercise.—With a run Spring to Half Spurn (b) Foot Support Front Rest: Turn to Front Leaning Rest and dismount with Leg backward swinging (w a r Spg to ½ Spn (b) F Sup Fnt Rst: Tn to Fnt Ln Rst & dsmt w L bkw swg). (H.)
  - Commands.—With a run, spring to front rest with left (right) leg sideways—go!... To front leaning rest—turn!... With right (left) leg backward swinging—down!...
  - Remarks.—As the spring to the "Front Rest" is taken the left (right) leg is raised sideways and placed on the apparatus. To turn to the "Front Leaning Rest" the left (right) hand is placed on the same pommel of the horse as the right (left) hand, and the body turned to the right (left). At the same time the right (left) foot is brought to the left (right) foot. To dismount, the right (left) leg is swung forward and backward, being joined by the left (right) leg on the latter swing, and the dismount made as in a "Horizontal Front Vault."
- 242 Exercise.—With a run Spring to Front Leaning Rest:
  Dismount with Leg backward swinging (w a r Spg to
  Fnt Ln Rst: Dsmt w L bkw swg). (H.)
  - Commands.—With a run, spring with legs to the left (right) to front leaning rest—go!... With right (left) leg backward wing a lean'...
  - Remarks.—As the spring is made, both legs are carried sideways to the left (right) and with a quarter turn of the body the left (right) hand is placed in position. The dismount is made as in Exercise 241.
- 243. Exercise.—With a run Horizontal Front Vault to Ride Sitting: Dismount with Legs backward swinging (w a r Hor Fnt V to Rid Sitt: Dsmt w Ls bkw swg). (H.)
  - Commands.—With a run, legs to the left (right), horizontal

front vault to ride sitting—go!... With legs backward swinging—down!...

Remarks.—The "Ride Sitting" is reached by swinging the legs sideways to the left (right) and parting them as the body turns to the right (left). The dismount is made by swinging the legs backward and landing to the left (right).

244. Exercise.—With a run Horizontal Front Vault (w a r Hor Fnt V). (H., Bm.)

Commands.—With a run, legs to the left (right), horizontal front vault—go!...

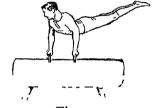


Fig. 193.

Remarks.—The legs are lifted sideways to the left (right) and the body turned right (left), so that the head, body, and legs are horizontal, and face towards the apparatus in passing over it. The right (left) hand retains its grasp, and a landing is made with right (left) side towards, the arm being brought to the side as the heels are lowered. (See Fig. 193.)

245. Exercise.—Between Rest: Swing and Horizontal Front Vault (Betw Rst: Swg & Hor Fnt V). (P.B.)

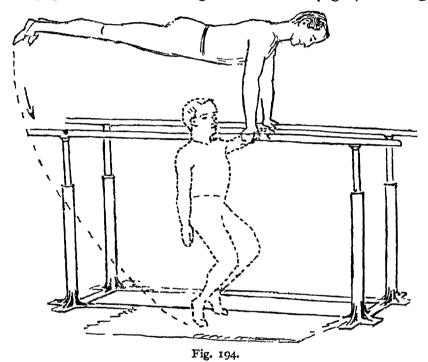
Commands.—Between rest—up!... With a swing, legs to the left (right), horizontal front vault—go!...

Remarks.—The "Between Rest" is taken as in Exercise 95, and on the second backward swing the legs and body pass over the left (right) bar in a horizontal position, the right (left) hand being placed on the left (right) bar as the vault is made, and the left (right) hand released. A landing is executed with right (left) side towards, and the right (left) hand is brought to the side as the heels are lowered to "attention." (See Fig. 194.)

246. Exercise.—Alternate-grip Front Leaning Thigh Rest: Horizontal Front Vault (Alt-gp Fnt Ln Th Rst: Hor Fnt V). (P.B.)

Commands.—Alternate-grip front leaning thigh rest—up!... Legs to the left (right), horizontal front vault—go!...

Remarks.—" Alternate-grip Front Leaning Thigh Rest" is taken as in Exercise III, one hand being in "undergrip." When vaulting to the left (right) the right



(left) hand is in "under-grip," and the body passes in a horizontal position over both bars, finishing as in Exercise 245. (See Fig. 195.)

247. Exercise.—With a run Half Hanging Horizontal Front Vault (w a r \frac{1}{2} Hg Hor Fnt V). (Bm.)

Commands.—With a run, legs to the left (right) half hang horizontal front vault—go! . . .

Remarks.—When the spring is made, the left (right) hand grasps the upper bar in "over-grip" and the right (left) hand is placed on the lower bar in "under-grip." The legs and body pass between the beams in a hori-

zontal position with the body turned toward the lower beam. The left (right) hand is then released and a landing made with right (left) side toward. (See Fig. 196.)

248. Exercise.—With a run Toward High Standing: Half Hang Horizontal Front Vault (w a r. Tow Hi St: ½ Hg Hor Fnt V). (Bm.)

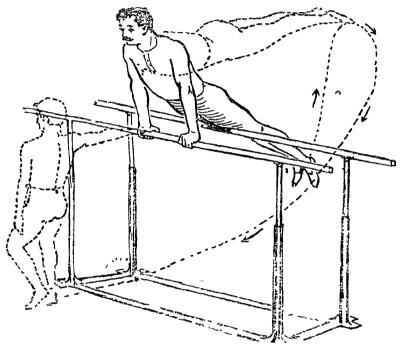
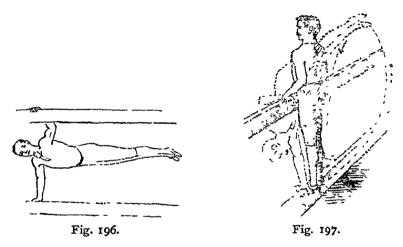


Fig. 195.

Commands.—With a run, spring to high standing and legs to the left (right) half hand horizontal front vault—go!...

Remarks.—The spring is made to "Toward High Standing," the right (left) hand grasping the upper beam and the left (right) hand the lower beam. The legs are swung over with the face towards the apparatus, a landing being made with right (left) side toward. (See Fig. 197.)

- 249. Exercise.—With a run Toward High Standing: Horizontal Front Vault (w a r Tow Hi St: Hor Fnt V). (Bm, P.B.)
  - Commands.—With a run, spring to toward high standing and with legs to the left (right) horizontal front vault —go!...
  - Remarks.—After the run the "take off" is made from the left (right) foot, and a landing executed on the lower beam on the right (left) foot. Both hands then grasp the upper beam in "over-grip," and the left (right) leg is swung backward, being joined by the right (left) leg

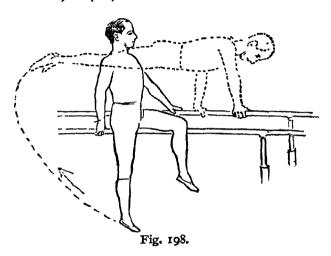


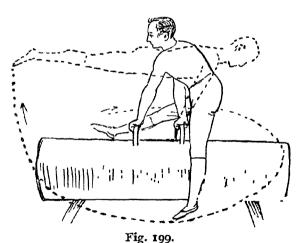
as the "Horizontal Vault" with legs to the left (right) is executed.

- 250. Exercise.—Inward-grip (off bar) Half Crook (a) Sitting: Horizontal Front Vault (Inw-gp (off bar) ½ Crk (a) Sitt: Hor Fnt V). (P.B.)
  - Commands.—With right (left) knee bent, half crook (a) sitting—up!... With inward-grip off bar, horizontal front vault—go!...
  - Remarks.—"Toward Standing" is taken on the outside of the bars with the hands in "over-grip." The "Half Crook (a) Sitting" is then assumed by a spring with quarter left (right) turn. The vault is performed by grasping the off bar with "inward-grip" left (right)

hand in front, at the same time swinging the legs backward and over both bars. (See Fig. 198.)

251. Exercise.—Feint Rest: Horizontal Front Vault (Fe Rst: Hor Fnt V). (H.)





Commands.—Left (right) feint rest—up!... Legs to the right (left), horizontal front vault—go!...

Remarks—As the spring is made the left (right) leg is

Remarks.—As the spring is made the left (right) leg is swung over the horse as in Exercise 81. It is then swung backward in the direction of a "left (right)

circle," and joining the right (left) leg the vault is made as in Exercise 244. (See Fig. 199.)

252. Exercise.—With a run One Hand Horizontal Front Knee Vault (w a r One Hn Hor Fnt Kn V). (H.)

Commands.—With a run one hand horizontal front knee vault—go! . . .

Remarks.—The start is made from the side with left (right) side towards the apparatus. An oblique run is taken and the left (right) hand and left (right) knee are placed on the apparatus at the same time as the spring

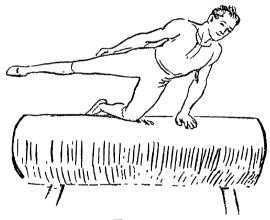


Fig. 200.

is made, the knee being slightly beyond the hand. The body is then turned and the left (right) knee stretched into the "Horizontal Vault" position, a landing being made as for that exercise. (See Fig 200.)

A "One Hand Horizontal Front Vault" is executed in a similar manner, without placing the knee on the apparatus.

253. Exercise.—Half Crook (a) Sitting: One Hand Horizontal Front Vault (\frac{1}{2} \text{ Crk (a) Sitt: One Hn Hor Fnt V). (P.B.)

Commands.-With left (right) knee bent, half crook

(a) sitting—up!... One hand horizontal front vault—go!...

Remarks.—The "Half Crook (a) Sitting" may be assumed as in Exercise 250. The left (right) hand is used to make the vault when the left (right) knee is bent. "Over-grip" is taken on the off bar and the legs are swung forward over both bars, the impetus being obtained from the right (left) leg and right (left) arm. Immediately following this, the body is turned to left (right) so that it faces the apparatus, and the

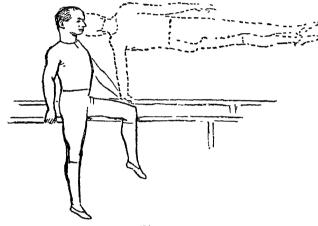


Fig. 201.

finish is made as in Exercise 244, but with left (right) side toward. (See Fig. 201.)

## Summary

Methods of Progression.—3, 4, 7, 10.

Apparatus.-H., Bm, P.B., H.B.

St (w a r): Spg to ½ Spn (b) F Sup Fnt Rst, tn to Fn Ln Rst

St (w a r): Spg to Fn Ln Rst Betw Rst: Swg to Fn Ln Rst

St (w a r): Spg to Rid Sitt

Dismt w L bkw swg

(w tn).

```
St (w a r):
Betw Rst: Swg &
Ov (Alt)-gp Fnt Ln Th Rst;
Ov (Alt)-gp Fnt Rst;
St (w a r): ½ Hg
St (w a r): 5pg to Tow Hi St &
St (w a r): Spg to Tow Hi St & ½ Hg
½ Crk (a) Sitt (Inw-gp off bar):
Fe Rst:
St (w a r): One Hn Hor Fnt Kn V.
St (w a r): One Hn Hor Fnt V.
½ Crk (a) Sitt: Hor Fnt V.
½ Crk (a) Sitt: One Hn Hor Fnt V.
```

### HORIZONTAL SIDE VAULTS

"Horizontal Side Vaults" are performed in a similar manner to "Horizontal Front Vaults," except that when the body is passing over the apparatus the side is toward same instead of the front.

## HORIZONTAL SCREW VAULTS

254. Exercise.—Alternate Twisted-grip Front Rest: Backward Screw Mount to Ride Sitting and dismount with Legs forward swinging (Alt Tw-gp Fnt Rst: Bkw Scr Mt to Rid Sitt & dsmt w Ls forw swg). (H.)

Commands.—Alternate left (right) twisted-grip front rest—up!... To ride sitting, backward screw mount—go!... With legs forward swinging—down!...

Remarks.—In the "Alternate Twisted-grip" the left (right) hand is turned outward while the right (left) hand grasps with ordinary "Inward-grip." When the "Front Rest" has been taken, the right (left) hand is released as the right (left) leg is swung backward, and the body turned three-quarters right (left) until the "Ride Sitting" position (facing outward) is reached. To dismount, the hands are placed on the apparatus in the rear and the legs swung forward, the finish

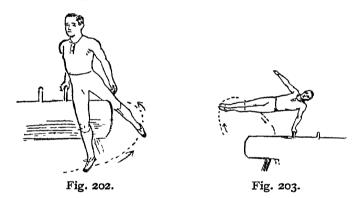
being made with left (right) side toward. (See Fig. 202.)

When the exercise is taken with a run, the "Horizontal Screw Mount" is performed immediately after the spring is made.

255. Exercise.—With a run Horizontal Screw Vault (w a r Hor Scr V). (H.)

Commands.—With a run, legs to the left (right), horizontal screw vault—go!...

Remarks.—This vault is executed in a similar manner to a "Horizontal Front Vault," except that "Alternate Twisted-grip" is taken and the body turned outwards



as it passes over the apparatus. When vaulting to the left (right) the left (right) hand is twisted and the body is turned three-quarters right (left), a landing being made with the left (right) side toward. (See Fig. 203.)

256. Exercise.—Half Crook (a) Sitting: Horizontal Screw Vault (\frac{1}{2} \text{ Crk (a) Sitt: Hor Scr V). (P.B.)

Commands.—With left (right) knee bent, half crook (a) sitting—up!... Horizontal screw vault—go!...

Remarks.—The "Half Crook (a) Sitting" is taken as in Exercise 250. When the left (right) knee is bent the vault is performed on the left (right) arm. The hand grasps the off bar in "over-grip," and the right (left) leg and right (left) arm are swung forward as the vault is made. In turning the body the right (left)

hand grasps the off bar as the left (right) hand is released. The finish is executed with right (left) side toward.

# Summary

Methods of Progression.—3, 4, 7, 10.

Apparatus.—H.; P.B.

Alt Tw-gp Fnt Rst: Bkw Scr Mt to Rid Sitt & dsmt w Ls forw swg.

w a r Bkw Scr Mt to Rid Sitt · Dsmt w Ls forw swg.

war Hor Scr V.

½ Crk (a) Sitt: Hor Scr V.

### SIT-OVER VAULTING

257. Exercise.—With a run Spring to Half Crook (a) Sitting:
Dismount with Legs winging over (w a r Spg to ½
Crk (a) Sitt: Dsmt w Ls swg ov). (H., P.B.)

Commands.—With a run, spring with left (right) knee bent to half crook (a) sitting—go!... With legs swinging over—down!...

- Remarks.—As the spring is made the body is turned to the right (left) and "Half Crook (a) Sitting" taken on the left (right) thigh. The hands are then placed on the apparatus in the rear, and a dismount made on the off side by swinging the legs over, landing on the balls of the feet with the knees bent. After this the knees are stretched and heels lowered, the right (left) hand being carried to the side as the last movement is performed.
- 258. Exercise.—With a run Sit-over Vault to Ride Sitting: Dismount with Legs forward swinging (w a r Sit-ov V to Rid Sitt: Dsmt w Ls forw swg). (H.)

Commands.—With a run, legs to the left (right) sit-over vault to ride sitting—go!... With legs forward swinging—down!...

Remarks.—As the spring is made the body is turned to the left (right) and the legs swung forward so that they are practically at right angles to the trunk. The left (right) hand is lifted and the legs parted so that the "Ride Sitting" position is reached. Both hands are then placed on the apparatus in the rear and the dismount made by swinging the legs forward, a landing being executed on the balls of the feet with left (right) side toward. After this the knees are stretched, and heels lowered to "attention," the left (right) hand being carried to the side as the last movement is performed.

250. Exercise.— Between Rest: Swing to Half Crook (a) Sitting (outside) and dismount with Legs forward swinging (Betw Rst: Swg to \frac{1}{2} Crk (a) Sitt (outsd) & dsmt w Ls forw swg). (P.B.)

Commands.—Between rest—up! . . . On second (third) forward swing, half crook (a) sitting outside left (right) bar—commence! . . . With legs forward swinging -down! . . .

Remarks.—The "Between Rest" is taken as in Exercise 96, and the body is swung forward, backward, and forward to the "Half Crook (a) Sitting (outside)" on the left (right) bar. The hands grasp the bars in the rear, and to dismount the legs are swung forward, a slight push off being made, the right (left) hand regrasping the near bar as \*1-1 " i i ' ... 1 with right (left) side toward.

260. Exercise.—Standing: With a run Sit-over Vault (St: war Sit-ov V). (H., Bm, H.B., P.B.)

Commands.—With a run, legs to the left (right) sit-over vault-go! . . .

Remarks.—After the spring is made the body is turned to the left (right), and the legs swung forward so that they are practically at a right angle to the trunk. The left (right) hand is momentarily lifted to allow the

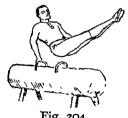


Fig. 204.

body to pass over the apparatus, and is immediately replaced. The right (left) hand is then released, and a landing made on the balls of the feet with knees bent. Following this, the knees are stretched and the left (right) arm carried to the side as the heels are lowered. (See Fig. 204.)

261. Exercise.—Between Rest: Swing and Sit-over Vault (Betw Rst: Swg & Sit-ov V). (P.B.)

Commands.—Between rest—up!...On second (third)

Commands.—Between rest—up!... On second (third) forward swing, legs to the left (right) sit-over vault—go!...

Remarks.—The "Between Rest" is taken as in Exercise 96. The body is then swung forward, backward, and forward, the fegs being raised forward at right angles to the trunk on the last swing. In this position the body passes over the left (right) bar, both hands being momen-

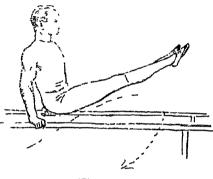


Fig. 205.

tarily released. The right (left) hand regrasps the left (right) bar, and a landing is made with right (left) side toward. (See Fig. 205.)

262. Exercise. — With a run Half Hang Sit-over Vault (w a r ½ Hg Sit-ov V). (Bm.)

Commands.—With a run, legs to the left (right) half hang sit-over vault—go! . . .

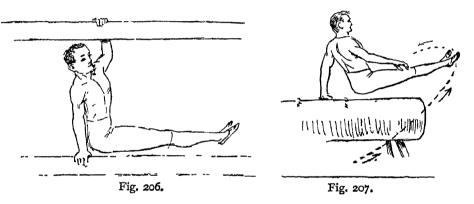
Remarks —When the spring is made the left (right) hand grasps the upper beam in "over-grip," and the right (left) hand is placed on the lower beam, also in "over-grip." The body is then turned to the left (right) as the legs are swung forward and pass between the beams. The hands are released and a landing executed with left (right) side toward. (See Fig. 206)

263. Exercise.—Feint Rest: Sit-over Vault (Fe Rst: Sit-ov V). (H.)

Commands.—Left (right) feint rest—up!... Legs to the right (left), sit-over vault—go!...

- Remarks.—The "Feint Rest" is taken as in Exercise 81. The left (right) leg is then swung backward in the direction of a left (right) circle, and as the legs swing up to the right (left) the body is turned in that direction, the vault being completed as in Exercise 260.
- 264. Exercise.—Inward-grip (behind) Half Crook (a) Sitting (outside): Sit-over Vault (two bars) (Inw-gp (beh) ½ Crk (a) Sitt (outsd): Sit-ov V (2 bars)). (P.B.)

  Commands.—With left (right) knee bent, half crook (a) sitting—up!... Over both bars, sit-over vault—go!...



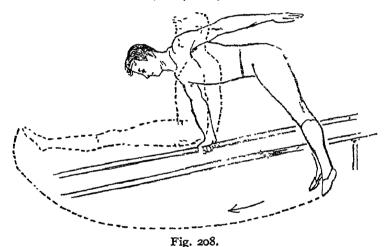
- Remarks.—The "Half Crook (a) Sitting" is taken as in Exercise 250, or by swinging to it from "Between Rest," the left (right) knee being straightened as the body is passed over both bars as in Exercise 261.
- 265. Exercise.—Standing: With a run One Hand Sit-Over Vault (St. w a r One Hn Sit-ov V). (H., Bm, H.B., P.B.)
  - Commands.—With a run, one hand sit-over vault—go!...

    Remarks.—This exercise is performed in a similar manner to Exercise 252, except that the body passes over the apparatus in sitting position. (See Fig. 207.)
- 266. Exercise.—\* Toward Standing: Double Sit-over Vault (Tow St: Dbl Sit-ov V). (H.)

  Commands.—Left (right) double sit-over vault—go!...

Remarks.—The hands grasp the pommels with "inward-grip," and in vaulting to the left (right) the legs are swung in the direction of a left (right) circle. As the body passes over the right (left) pommel the right (left) hand is lifted, and immediately following this the body turns towards the left (right) and passes over the left (right) of the horse with the legs horizontal, the left (right) hand in turn being released. Before the landing is made the right (left) hand grasps the left (right) pommel.

267. Exercise.—\* Between Rest: Double Sit-over Vault (Betw Rst: Dbl Sit-ov V). (P.B.)



Commands.—Between rest—up!... On second (third) backward swing, left (right) double sit-over vault—go!...

Remarks.—On the second (third) backward swing the legs are carried over the right (left) bar and bent forward from the hips. They then swing in the direction of a left (right) circle, passing the right (left) hand, which is released, and over the left (right) bar, the right (left) hand grasping the latter as the landing is being made with right (left) side toward. (See Fig. 208.)

268. Exercise.—\* Standing: With a run Triple Sit-over Vault (St: war Tri Sit-ov V). (H.)

Commands.—With a run, left (right) triple sit-over vault —go! . . .

Remarks. — After the spring is made the legs are swung in the direction of a left (right) circle, and passing over the right (left) pommel the weight is transferred on to the left (right) arm, and the legs continue on as in "Double Sit-over Vault," but instead of landing on the side they are near

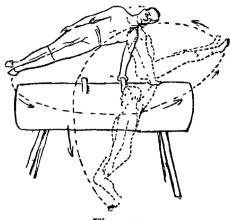


Fig. 209.

maintained in a horizontal position, and the body makes a further quarter turn to the left (right) and a circular movement is performed over the left (right) pommel, the right (left) hand resting on the horse and being used as a pivot. The landing is then made with the right (left) side toward. (See Fig. 209.)

# Summary

Methods of Progression.—3, 4, 7, 10.

Apparatus.-H., Bm, P.B., H.B.

```
St (w a r): Spg to ½ Crk (a) Sitt
St (w a r): Sit-ov V to Rid Sitt
Dismt w Ls forw swg (w tn).
Betw Rst: Swg to ½ Crk (a) Sitt
St (w a r):

Potent Ret : Seem &
```

St (w a r):

Betw Rst: Swg &

St (w a r): ½ Hg

Fe Rst:

½ Crk (a) Sitt:

Fnt (bk) Rst:

St (w a r):

½ Crk ½ Sitt:

One Hn Sit-ov V (w tn).

\*St (w a r) . \*Fe Rst: }Dbl Sit-ov V : Tri Sit-ov V \*Betw Rst : Swg & Dbl Sit-ov V

## STRIDE VAULTING

269. Exercise.—\* With a run Spring to High Stride Standing: Forward Deep Jump (w a r Spg to Hi Std St: Forw Dp Jp). (H.)

Commands.—With a run, spring to high stride standing—go!... Forward deep jump—go!...

Remarks.—As the spring is made the hands are placed on the horse and the legs are parted to the "High Stride Standing" position. The "deep jump" is performed as in Exercise 229.

270. Exercise.—\* Standing: With a run Stride Vault (St: war Std V). (H., Bm.)

Commands.—With a run, stride vault—go! . . .

Remarks.—As the spring is made the legs are parted and kept separated until clear of the apparatus, when they are brought together, and a landing made on the balls of the feet with knees bent. The knees are then stretched and heels lowered. Taken with living support this exercise is known as "leap frog."



Fig. 210.

It can also be performed over the horse (box) lengthways, in which case the legs are kept together until well over the apparatus, when they are separated as above. (See Fig. 210.)

271. Exercise.—\* Standing: With a run Backward Stride Vault (St: war Bkw Std V). (H.)

Commands.—With a run, backward stride vault—go!...

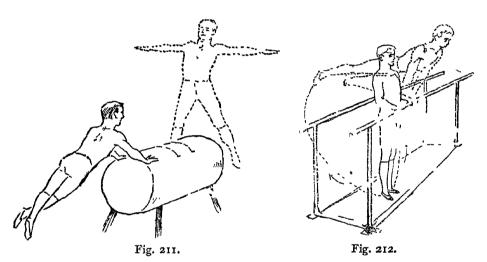
Remarks.—This exercise is usually performed with the horse (box) lengthways, the body being twisted to the left (right) and the legs separated so that the right (left) leg passes along the left (right) side, and the left (right) leg along the right (left) side of the apparatus. The

landing is made in "Toward Standing" at far end. (See Fig. 211.)

272. Exercise.—\* Inward-grip Toward Standing (end): Stride Vault to Between Rest (Inw-gp Tow St (end): Std V to Betw Rst). (P.B.)

Commands.—Stride vault to between rest—go! . . .

Remarks.—" Inward-grip" is taken at the end of bars, and as the spring is made the legs are separated and carried over both bars, the hands regrasping immediately; the legs meet in a horizontal position and swing backward to "Between Rest."



273. Exercise.—\* Between Rest (end): Backward Stride Vault (Betw Rst (end): Bkw St V). (P.B.)

Commands.—Between rcst—up!...Backward stride vault—go!...

Remarks.—When the "Between Rest" has been taken the legs are swung forward, separated, and passed backward over the bars, being brought together as the landing is made.

274. Exercise.—\* Over-grip Toward Inside Standing · Backward Stride Vault (Ov-gp Tow Insd St: Bkw Std V). (P.B.)

Commands.—Backward stride vault—go! . . .

Remarks.—The starting position is taken between the bars with the shoulders parallel to same, the hands grasping the front bar in "over-grip." As the spring is made the legs are separated and passed backward over the rear bar, being brought together as the hands push off, the landing taking place in "Toward Standing (side)." (See Fig. 212.)

275. Exercise.—\* Hand Rest: Stride Vault (Hn Rst: Std V). (P.B., H.)

Commands.—Hand rest—up!... Stride vault—go!... Remarks.—The "Hand Rest" is taken as in Exercise 106. The "Stride Vault" is performed by separating the legs, pressing away strongly with the hands, throwing the head and shoulders back, and landing with back towards the apparatus, the legs passing on the outside of the bars.

# Summary

Methods of Progression.—3, 4, 7, 10.

Apparatus.-H., P.B., Bm, H.B.

\*St (w a r) Spg to Hi Std St: Forw Dp Jp.

\* Tow St (end): Std V to Rid Sitt & dismt w Ls forw (bkw) swg.

\* St (w a r): \* TowInsdSt: \* Fnt Rst:

\* Hn Rst:

\* Tow St (end): Std V to Betw Rst.

\* Tow St (end): Bkw St V.

\*St (war): Bkw Std V.

HIGH FRONT, HIGH SCREW, AND HAND SPRINGS

276. Exercise.—Standing: With a run High Front Vault (St: war Hi Fnt V). (H., H.B., Bm.)

Commands.—With a run, legs to the left (right) high front vault—go!...

- Remarks.—The spring is made as for a "Horizontal Front Vault," but the legs and body are lifted so as to reach the "Hand Rest" position, from which point the body is turned to the right (left) and a landing made with right (left) side toward. (See Fig. 213.)
- 277. Exercise.—With a run High Screw Vault (w a r Hi Scr V). (H.)

  Commands.—With a run, legs to the left (right) high screw vault —go!...

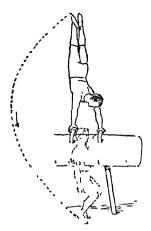


Fig. 213.

- Remarks.—This vault is executed as in Exercise 255, except that the legs and body are lifted to a vertical position after the spring.
- 278. Exercise. Between Rest: Swing and High Front Vault (Betw Rst: Swg & Hi Fnt V). (P.B.)

  Commands.—Between rest—up!... On second (third) backward swing, legs to the left (right) high front vault—go!...
  - Remarks.—This is a similar exercise to No. 245, except that the legs are swung up to the vertical position during the vault.
- 279. Exercise.—\* Between Rest: Swing and High Double Front Vault (Betw Rst: Swg & Hi Dbl Fnt V). (P.B.) Commands.—Between rest up! . . . On second (third) backward swing high double front vault—go! Remarks.—On the second (third) backward swing the legs and body are lifted as in swinging to "Hand Rest," but the body makes a half left (right) turn, the right (left) hand being released, and a landing is made with the left (right) side toward. (See Fig. 214.)
- 280. Exercise.—\* Between Rest: Swing and Hand Spring (b)
  (Betw Rst: Swg & Hn Spg (b)). (P.B.)

Commands.—Between rest—up!... On second (third) backward swing, bent arm handspring—go!...

Remarks.—On the second (third) backward swing the arms are bent and the legs and body lifted in rear so that they turn completely over, and a landing is made, with a push off from the hands, with back toward.

281. Exercise. \*\* Between Rest: Swing and Hand Spring (Betw Rst: Swg & Hn Spg). (P.B.)

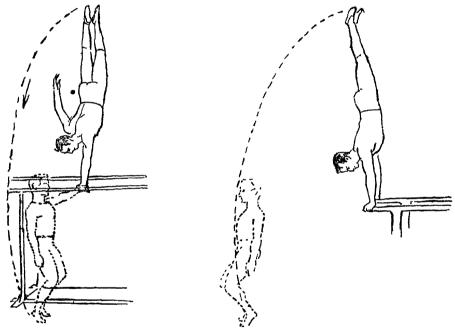


Fig. 214.

Fig. 215.

Commands.—Between rest—up!... On second (third) backward swing, hand spring—go!...

Remarks.—On the second (third) backward swing the legs and body are lifted in rear to the "Hand Rest" position and turned over, the arms being straight throughout. (See Fig. 215.)

282. Exercise.—Between Rest: Swing with quarter turn and Hand Spring (b) (Betw Rst: Swg w ½ tn & Hn Spg (b)). (P.B.)

Commands.—Between rest—up!
... On second (third) backward swing with quarter turn
on to left (right) bar, hand
spring—go!...

Remarks.—On the second (third) backward swing the right (left) hand is released as the legs and body are lifted in the rear, and a quick turn is made toward the left (right) bar, which is grasped by the right (left) hand as the vertical position is reached. The body then turns over, and a landing

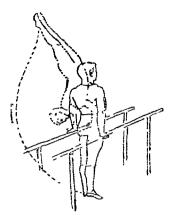


Fig. 216.

is made with a push off from the hands. (See Fig. 216.)

### Summary

Methods of Progression.—3, 4, 7, 10.

Apparatus —H., H.B., Bm, P.B.

St (w a r): Hi Fnt (Scr) V.

(Swg & Hi Fnt V (w tn).

\* Betw Rst Swg & Hi Dbl Fnt V. Swg & Hn Spg (w tn).

# MARCHING

#### PLAIN MARCHING

283. Exercise.—Quick marching in file (Q mch in file).

Commands.—Quick—march!...Class—halt!...

Remarks.—A file represents two or more pupils lined up one behind another at a distance of approximately 30 inches from heel to heel. At "Quick-march!" the whole step forward with the left foot a full pace. followed by the right foot, at a rate of about 120 steps to the minute, the arms being swung forward and backward from the shoulders, right arm with the left leg and left arm with the right leg. The same relative distance should be maintained throughout. As the leg is swung forward the heel meets the ground first, and simultaneously the heel of the rear foot is raised, the weight of the body is then transferred over the forward foot, and the rear leg swings forward. The head should be held erect and the chest lifted. The whole movement should be one of freedom, all stiffness being eliminated. At "halt!" the moving foot completes its step and the rear foot is drawn smartly up to "attention." "Mark—time!" is performed by raising the knees forward alternately so that the toes leave the ground a few inches. The ankles are stretched and the balls of the feet meet the ground first.

284. Exercise.—Slow march in file (S mch in file).

Commands.—Slow—march!...Class—halt!...

Remarks.—The same principles apply to this marching as in "Quick marching," except that the rhythm is about 75 steps to the minute, and instead of the heel touching the ground first the ankle is stretched so that the ball of the foot touches it first. In this way it

assumes somewhat the nature of a balance. The arms are also kept steady at the sides.

285. Exercise.—Quick marching in rank (Q mch in rank).

Commands.—By the left (right) quick—march!...

Remarks.—A rank represents two or more pupils lined up side by side with sufficient distance to allow of the arms being swung forward and backward freely. The marching is performed in the same manner as in Exercise 283, the flank pupil responsible for the "dressing" marching on to a point directly in front, and the remainder keeping the same relative distance and maintaining the "dressing" by the left or right as indicated in the command.

286. Exercise.—Slow marching in rank (S mch in rank).

Commands.—By the left (right) slow—march!...Class
—halt!...

Remarks.—See Exercises 284 and 285.

# Summary

Methods of Progression.—1, 3, 4, 10, 11.

Mch in file (Q & S). Mch in rank (Q & S).

## FIGURE MARCHING

287. Exercise.—Marching and forming "L" (Mch & form "L").

Commands.—Quick—march!...Left—file!...Class—halt!...

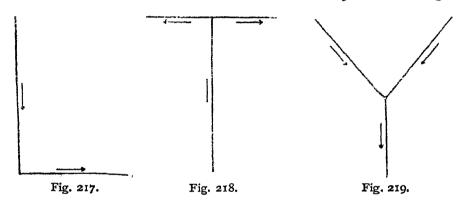
Remarks.—The class is lined up in file facing in the direction of the arrow. "Quick—march!" is given, and at "Left—file!" the executive word being given as the left foot is coming to the ground, the first pupil takes a further step forward and makes a quarter left turn, pivoting on the right toe which is in front, and steps off

in the new direction with the left foot. The remainder follow on until the letter "L" is formed, and the command "Class—halt!" or "Mark—time!" is then given. (See Fig. 217.)

288. Exercise.—Marching and forming "T" (Mch & form "T").

Commands.—Quick—march!... Left and right alternately—file!... Class—halt!...

Remarks.—Marching in file in the direction of the arrow, at "file!" the first pupil turns left, the second right, and the remainder follow on alternately left and right



until the "T" is formed, and "Class—halt!" or "Mark—time!" is given. (See Fig. 218.)

289. Exercise.—Marching and forming "Y" (Mch & form "Y").

Commands.—Quick—march!... To rear, left, and right oblique—file!... Forming single file, forward right and left oblique—file!... Class—halt!...

Remarks.—The two leaders firstly make a three-eighths left and right turn respectively, and marching forward in the new direction form the first part of the "Y." A one-eighth right and left turn respectively and forming single file will complete the remainder of the "Y." (See Fig. 219.)

290. Exercise — Marching and forming "N" (Mch & form "N").

Commands.—Quick — march!...Right—file!...To rear, right oblique—file!...To ear, left oblique—file!...Class—halt!...

Remarks.—The "Right—file!" will bring the class in the direction of the arrow for the first stroke of the "N." The leader then makes a three-eighths right turn, and the remainder of the file following in the new direction the oblique stroke of the letter is made. A three-eighths left turn completes the "N." (See Fig. 220.)

291. Exercise.—Marching and forming "O" (Mch & form "O").

Commands.—Quick — march! . . . In circle, left — file! . . . Class—halt! . . .

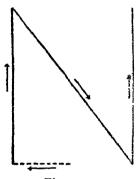


Fig. 220.

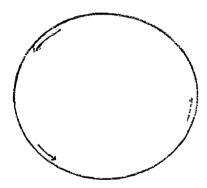


Fig. 221.

Remarks.—The file circling to the left, the leader joins up with the rear pupil and completes the letter "O." (See Fig. 221.)

292. Exercise.—Marching and forming "M" (Mch & form "M").

Commands.—Quick — march!... Left—file!... Forward left and right alternately—file!... To rear, left and right oblique—file!... Class—halt!...

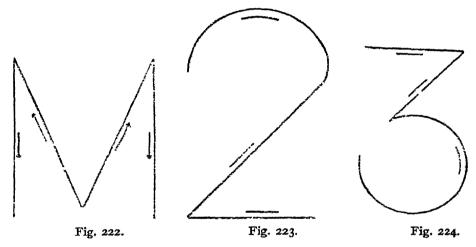
Remarks.—From the bottom of the "O," "Left—file!" will bring the file to the starting-point of the "M." The first pupil makes a one-eighth left, and the second a one-eighth right turn, the remainder following alter-

nately. A three-eighths left and right turn respectively and the two files march down forming the sides of the "M." (See Fig. 222.)

293. Exercise.—Marching and forming figure "2" (Mch & form fig "2").

Commands.—Q'lick—marcl!... Right circle—file!...
Forward right oblique—file!... To rear, left oblique—file!...

Remarks.—The first part of the figure is made to the command "Right circle—file!" and at a given point "Forward right oblique—file!" provides the down-



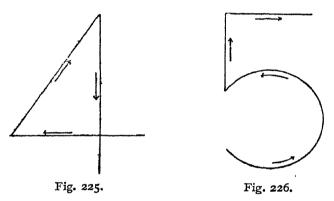
ward stroke. "To rear, left oblique—file!" finishes the figure. (See Fig. 223.)

294. Exercise.—Marching and forming figure "3" (Mch & form fig "3").

Commands.—Quick—march!... To rear, right oblique—file!... Right circle—file!... Class—halt!...

Remarks.—Marching in the direction of the first arrow, the leader makes a three-eighths right turn and the remainder follow. Marching forward in the new direction, at "Right circle—file!" the leader makes a three-eighths left turn, and followed by the remainder makes three-quarters of a right circle, completing the figure "3." (See Fig. 224.)

- 295. Exercise.—Marching and forming figure "4" (Mch & form fig "4")
  - Commands.—Quick—march!... Left—file!... To rear, right oblique—file!... To rear, right oblique—file!...
  - Remarks.—" Left—file!" forms the horizontal stroke of the "4"; "To rear, right oblique—file!" provides the diagonal; and a further "To rear, right oblique—file!" the perpendicular stroke of the figure "4." (See Fig. 225.)
- 296. Exercise.—Marching and forming figure "5" (Mch & form fig "5").



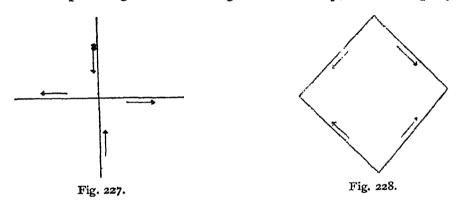
- Commands.—Quick—march!...Left circle—file!... Right—file!...Right—file!...Class—halt!... Remarks.—"Left circle—file!" makes the lower part of the figure and "Right—file!" twice, completes it. (See Fig. 226.)
- N.B.—It will be noticed that in the letters and figures described above, the one can be made to follow on the other, thus working the various letters or figures in succession.
- 297. Exercise.—Marching and forming a Cross (Mch & form Cr). Commands.—Quick—march!... Left and right alternately—file!... Left and right—file!... Left and right—file!... Class—halt!...

Remarks.—The file firstly separates left and right alternately, followed by a further "left and right—file!" and again "Left and right—file!" meeting at the centre. "Right and left—file!" at this point will form the cross. (See Fig. 227.)

298. Exercise.—Marching and forming a Diamond (Mch & form Di).

Commands.—Quick—march!... To rear, left and right alternately oblique—file!... Class—halt!...

Remarks.—From the "cross" the files continue on and separating left and right alternately, file obliquely



backward to the rear, forming the diamond. (See Fig. 228.)

299. Exercise.—Marching and forming a Star (Mch & form Star).

Commands.—Quick—march!... To rear, right and left oblique—file!... To rear, right and left oblique—file!... Class—halt!...

Remarks.—Making a three-eighths turn and filing to the corners, the four files make a further three-eighths turn and merge on the centre to form the star. (See Fig. 229.)

300. Exercise.—Marching and forming a Square (Mch & form Sq).

Commands.—Quick—march!...To rear, left oblique—file!...Class—halt!...

Remarks.—The four leaders make a three-eighths left

turn and march forward, the remainder following and form the square. (See Fig. 230.)

#### Summary

Methods of Progression.—I, 3, 4, 10, II.

Mch & form Letters.

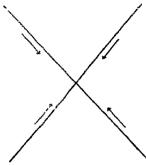
Mch & form Figs.

Mch & form Cr.

Mch & form Di.

Mch & form Stars.

Mch & form Sq.





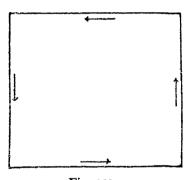


Fig. 230.

#### TACTICAL MARCHING

301. Exercise.—Marching with about turning (Mch w abt tn). Commands. — Quick — march! . . . About—turn! . . . Remarks.—" About" is given as the left foot comes to the ground, and "turn!" as it reaches the ground the next time; two further steps are then taken and the "About turn" executed on the balls of the feet, the left foot being swung forward to make the first step in the new direction. A further method is to take a check pace with the right foot (after the executive word "turn!") and to turn about on the spot in three movements, stepping off with the right foot in the new direction on the fourth count. This movement may also be made to the left on the command, "Left about—turn!" the executive being given on the right foot.

302. Exercise.—Marching and forming fours (Mch & form 4s).

Commands.—Quick — march!... Form — fours!...

Form—two-deep!...

Remarks.—The squad falls in in two ranks, the rear rank being two paces behind the front rank, and numbered off from the right, the rear rank taking the same numbers as the front rank. "Right-turn!" changes the ranks into "double file." When on the march, "Form -fours!" is given so that the executive comes on the right foot, a check pace is made with the left foot, and the odd numbers then mark time two beats, while the even numbers step up into position to the right of the odd numbers by taking a pace to the right with the right foot and a pace forward with the left foot. Both ranks lead on with the right foot, "dressing" by the left. To form "two-deep" the executive is given on the right foot, a check pace is made with the left foot, and the odd numbers "mark-time" two beats while the even numbers step back into position behind the odd numbers by taking a pace to the rear with the right foot and a pace to the left with the left foot. Both ranks lead on with the right foot and continue marching forward. If "About—turn!" is given, followed by "Form-fours!" the odd numbers mark time two beats and the even numbers step backward to the left of the odd numbers, all marching forward and "dressing" by the right. "Forming fours" while marching in ranks is performed by the even numbers stepping backward to the right behind the odd numbers, or, if "About—turn!" is given, by stepping forward to the left. In this way the relative positions are always the same in "fours," the even numbers moving into position while the odd numbers mark time, a check pace always intervening after the executive word.

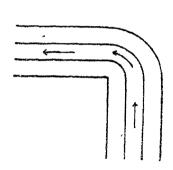
303. Exercise.—Marching with wheeling (Mch w whl).

Commands.—Quick—march!...Left (right) — wheel!

... Class—halt!...

Remarks.-When marching with a frontage of two or

more pupils "Left (right)—wheel!" is made by pivoting round the left (right) flank a quarter of a circle, and, as the outer flank has the greater distance to travel, the "dressing" is maintained by that flank. (See Fig. 231.) When marching in single or double rank a wheel may be made forward or backward, and it is necessary to prefix the command with "Forward (backward) left (right)—wheel!" (See Fig. 232.) Further, as a  $\frac{1}{4}$  ( $\frac{1}{2}$ ) ( $\frac{3}{4}$ ) or whole wheel may be made, the extent of the movement required should be stated, e.g., "Backward, half left—wheel!" In this case the left flank acts as the pivot, the rank marching backward by the





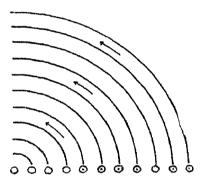


Fig. 232.

right through half a circle. (See Fig. 233.) It is also possible to have the pivot in the centre of the rank, and wheel to the left (right) with the right (left) half marching forward and the left (right) half marching backward, to meet which the command, "In circle, left (right)  $\frac{1}{4}$  ( $\frac{1}{4}$ ) ( $\frac{3}{4}$ )—wheel!" is applied. (See Fig. 234.)

304. Exercise.—Marching in file and turning into rank (Mch in file & tn into rank).

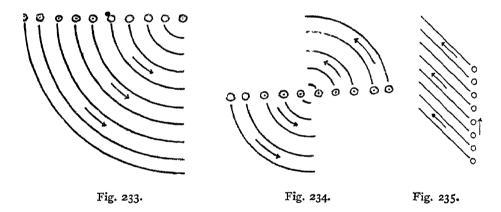
Commands.—Quick—march!... Into rank, left (right)—turn!... Into file, right (left)—turn!... Class—halt!...

Remarks.—When turning from file into rank and vice versa the command for a turn to the left (right) is given when the left (right) foot is coming to the ground. If

"left (right)" is given on the left (right) foot, and "turn!" with the next movement of that foot, a suitable pause is provided between the "caution" and "executive." The right (left) foot then makes a further step forward, and the left (right) turn executed on the right (left) foot, the left (right) foot making the first step in the new direction.

305. Exercise.—Marching with turning into incline (Mch w tn into incl).

Commands.—Quick—march!...One-eighth left (right)
—turn!...One-eighth right (left)—turn!...Class
—halt!...

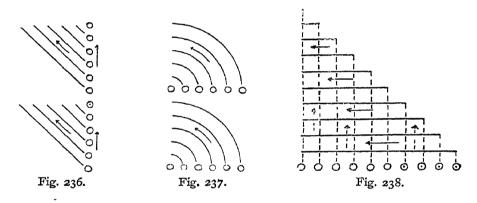


Remarks.—A class may be moved diagonally forward when marching in file or rank by making a one-eighth left (right) turn. (See Fig. 235.) If in file, a further one-eighth right (left) turn will bring it back again into the original direction, or a further one-eighth left (right) turn change it into rank. When marching in rank a one-eighth right (left) turn will move the rank at 45 degrees to the right (left), and a further one-eighth left (right) turn will change it back to the original front, or a one-eighth right (left) turn bring it into file facing the right flank. In each case the whole line or file turns one-eighth, and the alignment is maintained throughout. Words of command follow Exercise 304.

306. Exercise.—Marching in file and forming line (Mch in file & form line).

Commands.—Quick—march!...On the left (right) form—line!...Forward!...Class—halt!...

Remarks.—When forming line on the left (right) the leader of the file (when in double file the leader of the left (right) file) marks time at the executive word "line!" and the remainder make a one-eighth turn in the named direction and march forward by the shortest route, forming a rank on the left (right) of the leader (in double file the rear rank conforms to the movement of the front rank).



At "Forward!" the whole march forward, "dressing" by the right (left).

307. Exercise.—Marching in sections (Mch in sects).

Commands.—Quick—march!... Sections on the left

(right) form—line!... Forward!... Sections left (right)—wheel!... Right—turn!... Class—halt!... Remarks.—The class is numbered off in sections of four, eight, or any other number, and each section works independently. For some purposes it is also advisable to number off the sections. When marching in file and the command is given, "Sections, on the left (right) form—line!" each section acts as in Exercise 306. (See Fig. 236.) At "Sections, left (right)—wheel!" each section wheels around to the left (right) flank, the whole

forming line. (See Fig. 237.) At "Right (left)—turn!"

the class is brought back into its original formation. Turning, wheeling, etc., may be performed in numerous ways, and a great variety of changes in formation thus effected.

308. Exercise.—Marching with change of rank (Mch w ch of rank).

Commands.—Quick—march!... To left (right) change —rank!... Class—halt!...

Remarks.—The class is formed up in rank, numbered off from the right, and the direction is changed left (right) by each pupil in succession turning left (right) after making the number of steps equal to the numerical position in the class, i.e., No. I will take one step and turn left (right), No. 2 two steps, and so on. At the executive word "rank!" the next step commences the counting and No. I turns, followed at each successive step by Nos. 2, 3, 4, etc. In this way the whole rank is changed, and No. I becomes the left (right) flank pupil. (See Fig. 238).

### Summary

Methods of Progression.—1, 3, 4, 10, 11.

Mch w abt tn.

Mch & form 4s.

Mch w whl.

Mch in file & tn into rank.

Mch in file & form line.

Mch in sects.

Mch w ch of rank.

### EXERCISES ON THE MARCH

### LEG EXERCISES

309. Exercise.—Marching with changing step (Mch w ch step).

Commands.—With change step, quick (slow)—march!

... Class—halt!...

Remarks.—This exercise may be carried out with a change

of step at each step or every two, three, four, etc., steps. If any specified number is desired it should be inserted in the command, e.g., "With feet changing at every fourth step, quick—march!" The change is made by drawing the rear foot up so that the toe is close to the heel of the forward foot, and the forward foot immediately moves another step forward, the two movements being made to one count. An ordinary step is then taken, and the changing performed by the other foot. If taken after "Quick—march!" the command is "Feet changing—commence!" a check pace being made before the feet changing begins. Feet changing during marking time is executed by one foot making two beats on the ground in succession at the ordinary rhythm.

- 310. Exercise.—Marching with Heels raising (Mch w Hls rais).

  Commands.—With heels raising, quick (slow)—march

  . . . Class—halt! . . .
  - Remarks.—The heels are raised as the left foot moves forward to make the first step, and the marching is performed on the balls of the feet, a spring-like motion taking place as each foot reaches the ground. When on the march the command is "Heel raising commence!" the executive word being given on the right foot. The left foot then makes the first step and commences the change. At "Class—halt!" the moving foot completes its step and the rear one is drawn up, the heels being lowered on the second motion. Ordinary marching is resumed to the command, "Quick—march!"
- 311. Exercise.—Marching with Heels raising and Knees bending (Mch w Hls rais & Kns bd).
  - Commands.—Withheels raising and knees bending at every third (fourth) step, quick (slow)—march!...Class—halt!...
  - Remarks.—As the foot is placed down at the third (fourth) step the rear foot is drawn up and the heels raised to the first count, the knees are then bent to "Spring (a) (b)" on the second count, stretched on the third count, and

heels lowered on the fourth count. The first step after the "heels raising and knees bending" is made with the left and right foot alternately. When taken from the "quick (slow) march" the counting starts with the first step after the command, "With heels raising and knees bending at every third (fourth) step—commence!" "Class—halt!" is given either at the end of the "heels raising and knees bending" or during the ordinary marching or during the ordinary mand. "Quick—march!"

- 312. Exercise.—Marching in Spring (a) (Mch in Spg (a)).

  Commands.—Heels—raise!...Knees—bend! (or Low marching—commence!)...Forward—march!...

  Class—halt!...
  - Remarks.—After the "Spring (a) Standing" has been taken, the feet are moved alternately forward as in marching. At "Class—halt!" the moving foot completes its step and the rear foot is drawn up. The knees are then stretched and the heels lowered. From "quick (slow)—march!" the command is, "With knees bending, change—march!" and the change is made at the next step following the executive word, the heels being raised and knees being bent simultaneously. To continue with ordinary marching the command is, "Quick (slow)—march!"
- 313. Exercise.—Marching with Knee forward bending (Mch w Kn forw bd).
  - Commands.—With knee forward bending, quick (slow—march!...Class—halt!...
  - Remarks.—This exercise consists of bending the knee forward and stretching it downward. "Halt!" is given as the knee is being stretched downward, and after this is completed the rear foot is drawn up. Taken on the march the command is, "Knee forward bending—commence!" the executive being given as the left foot reaches the ground, the right soot then takes another step forward and the left knee is bent forward. Further progression of this exercise is made by stretching the

leg forward before it is placed on the ground, making three counts to the movement instead of two (rhythm as for slow marching).

314. Exercise.—Marching with hopping (Mch w hop).

Commands.—On the left (right) foot, hopping—commence!
... Quick—march!...

Remarks.—The executive word is given on the left (right) foot when the hopping is to be performed on that foot, and unless otherwise stated the raised leg is carried backward and kept stretched, but it may be raised forward, or the knee bent forward. Hopping with alternate feet is executed by one hop being made with the left, and one with the right foot.

315. Exercise. Marchin with hopping in Spring (b) (Mch w hop in Spg (b)).

Commands.—With knees full bent, hopping—commence!...Quick—march!...

Remarks.—The executive word is given on the left foot, and one step farther is made with the right foot, from which a spring is made into the full knees bend position. A series of hops are then made, and at "Quick—march!" the upright position is resumed and the left foot steps forward.

# Summary

Methods of Progression.—1, 3, 4, 10, 11.

Mch w ch step.

Mch w Hls rais.

Mch w Hls rais & Kns bd.

Mch in Spg (a).

Mch w Kn forw bd.

Mch w hop (1 (r) F).

Mch w hop (alt F).

Mch w hop in Spg (b).

#### -ARM EXERCISES

316. Exercise — Marching with Arms upward and downward stretching (Mch w As upw & dnw str).

Commands.—Quick—march!...Arms upward and downward stretching — commence!...Quick—march!...

Remarks.—The executive word "commence!" is given as the left (right) foot is brought to the ground and a check pace is made with the right (left) foot. The arms are, then bent as the left (right) foot moves forward, and each succeeding arm movement made on every left (right) step. This is continued until "Quick—march!" is given as the arms are stretched downward, and the first step of ordinary marching is made with the left (right) foot.

Other arm movements follow on the same principle.

# Summary

Methods of Progression.—1, 3, 4, 10, 11.

Mch w As str.

Mch w As part.

Mch w As flg.

Mch w As swg.

Mch w alt A str.

Mch w alt A flg.

Mch w alt A swg.

### LEG AND ARM EXERCISES COMBINED

317. Exercise.—Marching with Heels raising and Arms forward and upward swinging (Mch w Hls rais & As forw & upw swg).

Commands.—Quick—march! . . . Heels raising with arms forward and upward swinging—commence! . . . Quick—march! . . .

Remarks.—Heels raising is performed as in Exercise 310, and the arms are swung forward and upward on the first count, and forward and downward on the third.

318. Exercise.—Marching with Knee forward bending and Arms flinging (Mch w Kn forw bd & As flg).

Commands.—Quick—march!... Knee forward bending with arms flinging—commence!... Quick—march!... Remarks.—The executive word "commence!" is given as the left foot comes to the ground; a check pace is made with the right foot, and the arms are bent forward as the left knee is raised. The left knee is then stretched downward and the right knee is raised, simultaneously with which the arms are flung sideways, the rhythm being as for slow marching. This is continued until "Quick—march!" is given, the executive coming as the left knee is raised and the arms bent forward.

319. Exercise — Marching with alternate hopping and alternate Arm forward and upward swinging (Mch w alt hop & alt A forw & upw swg).

Commands.—Quick—march!... Alternate hopping with alternate arm forward and upward swinging—commence!... Quick—march!...

Remarks.—The executive word "commence" is given as the left foot comes to the ground, and a check pace is made with the right foot prior to the hop on the left foot. As the upward spring is made the right arm is swung forward and upward, and as the landing is made the right arm is swung forward and downward. The right foot then moves forward and hops as the left arm is swung forward and upward. In "Quick—march!" the executive word is given as the right foot lands after hopping, and the left foot takes the first step of ordinary marching, the left arm being swung forward and downward.

320. Exercise.—Marching with hopping in Spring (b) with Arms parting (Mch w hop in Spg (b) w As part).

Commands.—Quick—march!... With knees full bent and arms parting, hopping—commence!... Quick—march!...

Remarks.—The "hopping with knees full bent" is explained in Exercise 315, and the arms are raised forward with the first hop and parted on the third, each successive movement of the arms being made on every other hop. At "Quick—march!" the knees are

stretched and the arms brought to sides, the left foot making the first step in ordinary marching.

Summary

Methods of Progression -1, 3, 4, 10, 11

 $\operatorname{Mar} \& \begin{cases} \operatorname{Hls\ rais} \\ \operatorname{Hls\ rais} \& \ \operatorname{kns\ bd} \\ \operatorname{Kn\ (L)\ forw\ bd\ (rais)} \\ \operatorname{Hop\ (alt\ F)} \\ \operatorname{Hop\ in\ Spg\ (b)} \end{cases} \le \operatorname{A\ ex}$ 

# RUNNING

#### DOUBLING

321. Exercise.—Double marching (Dbl mch).

Commands.—Double—march!...Quick—march!... Remarks.—The hands are closed and arms bent slightly at the elbows. "Doubling" is performed on the toes at about 180 steps to the minute. Very little bending of the knees is necessary when the leg is moving forward so as to break the force of the landing and

provide the spring for propelling the body forward. A slight forward inclination of the trunk assists the movement, and the arms are swung freely forward and backward from the shoulder. (See Fig. 239.) To change into "Quick—march!" the executive word is given as the right foot reaches the ground, and four steps are allowed to slow down, the fifth step being accentuated to mark the beginning of marching.

"Double marking time" consists of a series of leaps off each foot on the same spot, the left and right knee



Fig. 239.

being bent forward and right and left arm swung forward alternately, the rhythm being the same as for "Doubling." At "Halt!" the raised foot is brought smartly to the ground.

322. Exercise — Double marching with Knee forward bending (Dbl mch w Kn forw bd).

Commands.—With knee forward bending, double—march!...Quick—march!...

Remarks.—This is similar to "Double mark—time!" (see Exercise 321), except that a short step forward is made with each leap. "Double marching" is changed into on the command "Double—march!", or "Quick—march!" is adopted as in the exercise referred to.

### Summary

Methods of Progression.—1, 3, 4, 10, 11.

Dbl mch in file (rank).

Dbl mch w Kn forw bd in file (rank).

Dbl mch w L forw rais in file (rank).

Dbl mch in file (rank) & ch into rank (file).

Dbl mch in figs—as in marching.

Dbl mch in tactics—as in marching.

Progression in the above is made by increasing the distance and speed.

# GAMES

(\* These games are suitable for men and boys only.)

## RUNNING AND JUMPING GAMES

- I. First and Last.—The whole of the players line up in single rank, and at "go!" run to a point indicated and back again, the first one home falling in on the left (right) or behind the instructor, and the others in rotation as they arrive. The players are then numbered, the odd numbers forming one team and the even numbers the other. This is a useful method for arranging sides in all team races.
- 2. Bean Bag (Dumb-bell) (Club) Race.—The class is divided up into heats according to the facilities available. A number of bean bags are allotted to each player, who is allowed to hold one at the start. At "go!" the players run a given distance and place the bag on a line, immediately returning for the next, which in turn is deposited on the line, and so on until the last bag is placed in position. The first player back over the starting line wins the heat, and is eligible to compete in the semi-final or final.

The game may be varied by placing Indian clubs in a line, or in a given circle drawn on the floor, and further by arranging the class in teams, each player having a bag, dumb-bell, or club, and in turn placing it in position, the team whose last player arrives home first winning the race.

3. \*Wheelbarrow Race.—The players are lined up in pairs, odd numbers in front and even numbers in the rear. The odd numbers place their hands on the floor and even numbers grasp their legs, taking one under each arm. At "go!" the players race forward over a given distance, or after passing a line may be required to travel backward over the starting line. Odd and even numbers then change places, and the first

pair passing the mark wins. In a team race the players line up in file with No. 1 in front and No. 2 takes his legs. On the return No. 2 goes down on his hands and No. 3 takes his legs. This continues until the first player grasps the legs of the last player, and the team whose last player reaches home first wins.

- 4. Hopping Race.—The players are arranged in heats or teams and hop on the left foot to a given point. Changing over on to the right foot they hop back to the starting place. The first player home wins the heat and is eligible to compete in the semi-final or final, or the team whose last player reaches home first wins.
- 5. Like Numbers Run.—The teams are arranged on the principle explained in "First and Last." Each team is numbered and placed in file about eight paces apart, No. I of each side being in front. The instructor stands well back in a central position, holding a flag (stick) in each hand, and calls out a number, upon which the players corresponding to that number run up on the inside, take a flag (stick), run back to the outside of their own file, around the end and back to the instructor. The first to return the flag to him scores one point for his side. The team obtaining the greater number of points wins.
- 6. \* Crab Race.—The players are arranged in heats or teams. Starting in line with the hands on the floor, at "go!" they run on all fours over a given course, the first one home qualifying for the semi-final or final, or the team whose last player passes the mark first wins.

This may be varied by placing Indian clubs in file about 20 inches apart some distance from the starting-post, one set being allotted each player or team. These have to be passed through in a zigzag manner, and any player knocking one down must replace it before continuing.

- 7. \*Frog Hop.—The same rules may be applied to this game as to "Crab Race," the difference being that the players hop on all fours, moving both hands and both feet together
- 8. Relay Race.—Two or more teams are arranged and number off. The odd numbers are placed at one end of the

field (ground) (gymnasium) and even numbers the other end, the players of the different teams being separated by six or eight paces, so that each side may be distinguished At "go!" No. I of each team will run and touch No. 2. of his own team, when No. 2 will run and touch No. 3, and so on. The team whose last player passes the mark first wins. A stick, dumbbell, or club may be transferred from one player to another.

of the gymnasium, one being chosen as a hawk to stand out in the centre. When the hawk flaps its wings (claps hands), the doves (remaining players) fly away, i.e., they run to the opposite side of the hall. Any players who are touched by the hawk before reaching the opposite wall, or passing a given line, join hands with the hawk. After this, at "go!?' the players return across the hall and the hawks endeavour to touch them. This continues until the last player touched becomes the hawk for starting a new game. When there are several hawks in the centre the players may run under their joined hands, providing they are not touched by either of the outside hawks. Any break in the chain of hawks frees those players caught in that particular flight.

vito. Cat and Mouse.—The players are arranged in a circle with hands joined, two having been selected to act as cat and mouse respectively. The mouse starts inside the circle and the cat outside. At "go!" the cat endeavours to catch the mouse by running under the hands of those in the circle, who continually move around from left to right and vice versa. When the cat gains admission to the circle the mouse has to run out, and is chased in this manner by the cat. When the mouse is touched, both cat and mouse join in the circle and two fresh players are selected to take their places.

This may be varied by the players lining up in two or more files with arms raised slightly sideways and hands joined (the outside players keeping the free arm by the sides) so that avenues are formed, up or down which the cat or mouse may run. The mouse is given a start, and at "go!" the chase begins. To change the direction of the avenues the instructor calls out "turn!" and the players left turn, rejoining hands

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in the new direction. The more frequent this change is made, the more fun is caused. If the cat does not catch the mouse after a reasonable period both are changed, so as to give other players a chance.

- II. Fill the Gap.—The players are arranged in a circle with hands joined, one having been selected to start the game. This player runs around on the outside of the circle and touches another player, who immediately runs in the opposite direction and endeavours to get back to the gap. The player who gets there first fills the gap and the one left out runs around the circle, in turn touching another player, who takes the opposite direction again and tries to refill the gap. To avoid collisions as the two players pass each other, the one who leaves the circle should always pass on the outside. Additional fun is provided by making the two players perform "Heels raising and Knees bending," "Arms upward stretching," or some such exercise when they meet, and then continue in their race for the gap.
- 12. Twos and Threes.—The players form up two deep in a circle, two being selected to start the game, one of whom is called "touch" and the other "third." At "go!" "touch" chases "third," who endeavours to obtain a place in front of one of the pairs forming the circle before being touched. If successful, the rear player of the pair becomes "third," and must in turn try to secure a place in front of another pair. If touched before reaching a position, "third" becomes "touch," and the original "touch" is chased until able to stop in front of a pair. The game continues on this basis as long as desired.
- teams. If in pairs the odd numbers take up position in front of even numbers, who mount "pick-a-back." At "go!" the odd numbers, carrying even numbers, run to, or around, a given place. The players then change over, the carrier becomes rider, and the same course is traversed again. The first pair home wins. If in teams, the teams form up in files with No. 1 in front. No. 1 carries No. 2, who on return carries No. 3, and so on until the last player carries No. 1, and the team whose last player passes the mark first wins.

- 14. \*Fireman's Lift.—This is a similar game to "Pick-a Back," except that the player is carried by the "Fireman's Lift." The lift should be practised several times before it is introduced in a game, in order to obviate accidents. It may be varied by the player who is to be carried having to be picked up from the "Lying" position.
- 15. Heads and Tails.—The players are arranged in two teams, one side being "heads," and the other "tails." They are placed in ranks back to back about three paces apart in the centre of the gymnasium. The instructor then tosses a coin and calls out the result. If "tails," then that side must run to its base at the end or side of the hall, and "heads" turn about to take up the chase. Any players caught are out of the game, and form prisoners on the opposite side. After an agreed number of tosses, the side with the greater number of prisoners wins. The players may sit or lie down on the floor when starting the game.

A variation is made by changing the names of the teams to "rats" and "rabbits." The teacher then calls "r-r-r-rats" or "r-r-r-rabbits," instead of "heads" or "tails."

- 16. Jumping the Swinging Rope.—The players form a circle at arm's distance apart around a centre player who circles a rope with a sand-bag or some suitable object at the end. As the rope passes around, the players jump to allow it to pass. Any player who is caught by the rope changes places with the player in the centre, or falls out of the game. In the former event the game continues as desired, while in the latter case the last player left in wins
- 17. \*Running the Gauntlet.—The players form a circle at half interval and bend forward, placing their hands on their backs. One player is selected to carry the gauntlet, consisting of an old boxing-glove or similar article, and walking round the outside places it in one of the players' hands. This player turns upon the player next on the right and flogs him until running around the circle he again reaches his place. The first player then selected to carry the gauntlet then takes the position of the one in whose hands he placed it, and that player

in turn travels round and puts it in another's hands, who wields it against the next one. The game continues in this manner as long as desired.

- 18. \*Circular Tug.—Each player is provided with an Indian club, dumb-bell, or similar object, and, forming a circle with wrists locked, the clubs are placed in the centre at a distance of about 18 inches apart in any direction. At "go!" the players endeavour to pull each other on to the clubs, and any player knocking one down is out, taking his club with him. Should more than one club be knocked down, the remainder are again erected, and the players form up afresh. In the event of the circle breaking, the two players concerned are out. This is necessary to prevent the game being delayed by a series of breakages. The last player in wins the game. A circle may be chalked on the ground if no apparatus is available, and any player pulled into this is out.
- 19. \* Out of the Circle.—A circle is chalked on the ground, sufficiently large for all the players to stand in, and leaving a margin of about 2 feet all round. The players take up position in the circle facing outward with arms folded. On the word "go!" they hop on the left (right) foot and endeavour to push each other out of the circle. Any player going outside the circle, or allowing the raised foot to touch the ground, is out, and the last player in wins.

#### BALL GAMES

I. Tunnel Ball.—The players are divided into two or more sides according to the number of balls available, and the teams are lined up in files about six paces apart, with about a yard or more separating each player in the file. All players open their legs widely and bend forward. At "go!" the leading player of each team starts the ball between the legs of the other players, who may give it more impetus as it passes or allow it to continue its course. Should it travel outside the tunnel so formed, the player who first missed it runs after the ball, and taking up his place passes it through his legs and along the tunnel. The last player in the team catches the ball and running up on the

outside (left) (right) calls out "jump!" The whole of the members of the team then jump backward and make room for the player with the ball, who, taking up his position in front, passes the ball through the tunnel. Each player acts in a similar manner on becoming last in the file, until the original first player is last, when on securing the ball he runs up on the outside and places the ball on the line or mark indicated. The team getting its ball home first wins.

- 2. Overhead Ball.—The rules for this game are similar to those for "Tunnel Ball," except that the players stand upright with their arms stretched above their heads, and the ball is passed along the top, each player touching it as it travels.
- 3. Tower Ball.—Three broomsticks and a half, together with a small football, are required for this game. The players form a circle at fairly wide intervals, and a tripod, made with the three broomsticks, is erected in the centre, representing the tower. One player is selected to defend this, and is provided with the half broomstick, the game being started by him knocking the ball out amongst the other players. The one in whose direction it travels secures it and endeavours, by throwing it in, to knock the tower down, the defender at the same time trying to keep it off by hitting the ball away. By a system of passing, the defender may be kept very busy moving around the tower. The first player to knock it down changes places with the defender.
- 4. Chase Ball in Circle (or Rank).—An even number of players are arranged in a circle at an interval of 2 yards or more, and numbered off. The odd numbers represent one team and the even numbers the other. One ball is handed to No. 1, and the other to an even number on the opposite side of the circle (say No. 10, if there are twenty players). At "go!" the balls are started round to the right, odd numbers passing to odd numbers and even numbers to even numbers. Should the ball of the odd side pass that of the even side it counts one point to odd, or vice versa if the even numbers ball passes that of odd numbers. In the event of a ball being dropped, the player responsible must secure it and take his place in the circle before passing it on again. Three out of five points wins.

Played in ranks, the two sides face each other at about 5 yards apart, the old and even numbers alternating in each rank. Starting from either end, one ball is held by an even number and the other by an odd number. At "go!" the balls are passed across to the next players of the same side in the opposite rank, and on reaching the end one returned in a similar manner. The starting player who receives the ball back first holds the ball above the head, and one point is credited to that player's side. Three out of five points wins the game.

- 5. Touch Ball.—The players form a circle, one of the number being selected to stand in the centre with a football, basket ball, or medicine ball. At "go!" the ball is thrown to one of the players in the circle, and is thereupon passed from one to another, the centre player endeavouring to intercept it or touch the player who may be holding it. When this occurs, the player who last threw the ball, or who is touched while holding it, changes place with the centre player. Any player who makes a bad pass, or who fails to catch a good pass so that the ball touches the ground, changes place with the centre player. The more active the centre player the faster the game.
- 6. Dodge Ball.—The players are divided into two teams, one team forming a circle around the other. The centre players are free to move in any direction, but those forming the circle (circle players) must remain in their places. At "go!" one of the circle players throws a football and endeavours to hit one of the centre players. Wherever the ball goes it should be picked up by the nearest circle player and thrown again at the centre players, of whom any one is out or concedes a point if hit. At the end of two minutes the teams change places, and the team obtaining the highest score at the end of a given number of games wins.

Basket Ball, Volley Ball, Hand Ball, Indoor Base Ball, and games which require an amount of detail as to rules and methods of scoring, have not been included in the above owing to lack of space, but where facilities are available they should most certainly be included. Detailed rules of each are easily obtainable.

### CONTEST GAMES

- I. \* Pillow Fighting.—The players are arranged in two sides and numbered off. Number I from each side sits astride a scaffold pole, erected about 4 feet from the ground with mats, etc., below, and, provided with pillows, proceed to attack each other until one is knocked off the pole. One point is scored for a success. Number 2 from each side then contest, and so on, the side obtaining the greater number of points winning. This may be made an individual contest by eliminating the losers and pairing off the winners until only one remains, who becomes the victor.
- 2. \* Mounted Wrestling.—Two teams are arranged in ranks facing each other and numbered off. The even numbers of each side mount the odd numbers pick-a-back, and the sides issue forth to battle, the riders endeavouring to pull their opponent riders off. Any rider touching the ground with one foot, or both feet, is out, and horse and rider fall in on the opposite side. One point is scored for each prisoner secured. The odd numbers then mount the even numbers and a second battle ensues. The team obtaining the greater number of points wins. The pairs may contest separately to vary the game
- 3. \* Cock Fighting.—The teams are arranged in ranks facing each other at about 2 yards interval. Each player is supplied with a wand, and sitting on the floor the wand is placed beneath the knees, and the arms are passed under the wands, with hands locked in front of the knees. The opposing players then endeavour to turn each other over by their feet. When a player is turned over he is out of action, and one point is scored by the victor. The team obtaining the greater number of points wins. An individual event may be made by eliminating the losers and pairing off the winners until only one remains, who becomes the winner.
- 4. \* Push and Go.—The players are arranged in two teams, and lined up in rank facing each other. At "ready!" the left foot is placed forward and hands placed on opponent's shoulders,

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each player having one arm outside and one arm inside. At "go!" the players endeavour to push each other beyond a base line 3 or 4 yards in the rear. Any player pushed over his own base line concedes one point to the opposite team, and the side obtaining the greater number of points in a given number of bouts wins.

5. Hand Tag.—The players are divided into two teams and are lined up in two ranks facing each other. At "ready!" the left foot is carried backward and the player grasps his opponent's right wrist. At "go!" they endeavour to pull each other toward their own base line (or wall). When a player is able to touch his own base he scores one point for his side, and the team obtaining the highest number of points in a given number of bouts wins.

# COMMON FAULTS

In view of the fact that the benefit to be derived from an exercise will be in proportion to its proper performance, and that faulty carriage may actually lead to harmful effects, a teacher must always be alert to correct improper positions.

It is quite unnecessary to detail the common fault- of all the exercises set out, and it would be impracticable to memorise them even if detailed. On a similar principle that all complicated exercises are a combination of simple ones, such movements will embody the general mistakes liable to occur in the elementary exercises, and if the faults are known as pertaining to the various parts of the body it will be only a question of enumerating the action involved to obtain the general faults of a complex movement. The following statement, therefore, contains the principal faults likely to be encountered. At the same time, experience will prove a greater aid in detecting any errors, either in the performance of an exercise or the position adopted, for it will be found that some students are quite exceptional in the faults they exhibit.

# HEAD MOVEMENTS

Side Bending.—Head allowed to turn, shoulder to rise, and trunk to bend over.

Forward Bending.—Chin allowed to poke forward and upper part of spine to bend.

Backward Bending.—Chin not drawn in, shoulders allowed to rise, and back to bend.

Turning.—Chin not drawn in and shoulders allowed to rise and turn.

Rotation.—Chin not drawn in and trunk allowed to participate in the movement.

### ARM MOVEMENTS

Hips Firm.—Shoulders raised, hands too far in rear, elbows drawn back so that shoulders are pushed forward, wrists not pressed down, and fingers separated.

Arms Bending. — Finger-tips not placed well back on shoulders, elbows not kept close in to sides, and arms permitted to come forward.

Arms Forward Bending.—Shoulders raised, elbows too high, too low, or allowed to come forward, wrists and fingers bent.

Neck Rest.—Head pushed forward, fingers locked, wrists bent, elbows allowed to come forward, or hips moved forward in pressing elbows back.

Arms Forward Stretching.—Arms not kept parallel from the shoulders and not fully stretched, thumbs allowed to come away from fingers, chest dropped and back rounded.

Arms Sideways Stretching.—Arms not horizontal or fully stretched, allowed to come forward, and wrists bent.

Arms Upward Stretching.—Arms not kept parallel and well back, not fully stretched, wrists bent, head and hips allowed to move forward, and back to round.

Arms Backward Stretching.—Arms not fully stretched, back hollowed, or trunk allowed to lean forward.

Arms Forward and Upward Swinging.—Arms not kept parallel and not carried straight forward, body allowed to participate in movement, and hips pushed forward.

Arms Sideways and Upward Swinging.—Arms not carried straight up to sides and not fully stretched, and head allowed to move forward.

Arms Flinging.—Arms not flung in line with shoulders, elbows allowed to move forward, and head not kept rigid.

Arms Circling.—Arms not the width of the shoulders apart when in "Reach" and "Stretch" positions, also not carried back sufficiently on the downward swing. Head and body allowed to participate in the movement.

### FOOT MOVEMENTS

Feet Closing.—Body allowed to sway and feet to scrape along the ground.

Feet Full Opening.—Body allowed to sway, feet to scrape along the ground, and proper angle not taken up.

Feet Placing.—Feet not placed in the right direction or separated the correct distance, proper angle not maintained, weight of body unevenly distributed, and shoulders allowed to turn.

### LEG MOVEMENTS

Heels Raising and Knees Bending.—Heels allowed to come apart, knees not turned out sufficiently nor bent to the proper angle, and body allowed to lean forward.

Knee Forward Bending.—Thigh not raised to the horizontal position, knee turned in, leg not at right angles to thigh, ankle insufficiently stretched, supporting knee bent, and body allowed to lean backward or forward.

Knee Backward Bending.—Knee allowed to come forward, leg not at right angle to thigh, ankle not stretched, supporting knee bent, and body allowed to lean forward.

Leg Raising.—Leg insufficiently raised and not in the right direction, supporting knee bent, and trunk allowed to move over.

Lunging.—Correct distance, direction, and angle of feet not assumed, body too much or insufficiently inclined, or rounded, proper angle of shoulders not maintained, knee of lunging leg not bent over the toe, and other leg not kept straight with foot flat on the ground. In "Toe Lunge" the rear ankle not fully stretched.

Horizontal Half Standing.—Knee and ankle of raised leg not full stretched nor horizontal with the trunk, head allowed to drop forward, back rounded, and knee of supporting leg bent in "Horizontal (a)  $\frac{1}{2}$  Standing."

Leg Circling.—Knee and ankle of circling limb not fully stretched.

### TRUNK MOVEMENTS

Trunk Backward Bending.—Hips allowed to move forward and the bend obtained from the lower part of back, head pushed forward and breathing held.

Trunk Forward Bending.—Knees allowed to bend, hips moved too far backward, head dropped forward, and back rounded.

Trunk Sideways Bending.—Hips allowed to move over, trunk twisted and not bent directly to side, knee on bending side not kept rigid and foot of other leg lifted, head not held in line with trunk.

Trunk Backward Falling.—Trunk not kept straight and head allowed to bend forward or fall backward.

Trunk Sideways Falling.—Trunk not moved directly over to side and not in line with raised leg, knee of supporting leg bent, head not held erect.

Trunk Turning.—Feet not kept flat on the ground, knees allowed to bend, right (left) shoulder brought forward when turning to the left (right), and head turned over left (right) shoulder.

### MISCELLANEOUS MOVEMENTS

Hanging.—Arms not kept the width of the shoulders apart, chest dropped, head allowed to move forward or backward, legs carried forward or backward, knees and ankles not fully stretched, feet apart or angle not maintained.

Hanging with Arms bent.—The forearm and upper-arm not bent at right angles. Other faults as for "Hanging."

Upper-Arm Hanging.—Shoulders raised, chest dropped, head moved forward, body not held vertical, knees and ankles not fully stretched, feet apart or angle not maintained.

Fall Hanging.—Feet too far forward or placed flat on the ground, heels separated, hips too high or too low, head pushed forward or allowed to fall backward, arms not wide enough apart, and chest dropped.

Arch Hanging.—Feet not far enough backward, heels separated, toes turned backward, knees bent, back hollowed, head pushed forward or allowed to fall backward, and arms too close together.

Front and Back Rests.—Arms not straight, head pushed forward, shoulders lifted, chest dropped, back rounded, heels apart, and ankles and knees not stretched.

Front Leaning Rest.—Hands too close together and not turned in, shoulders too far over, head pushed forward, chest dropped, back rounded, hips too high or too low, and heels apart.

Side Leaning Rest.—Shoulders too far over, head pushed forward, and hips too high or too low.

Jumping.—Take-off incorrectly made, legs insufficiently stretched during jump or allowed to come apart, and the landing not made on the balls of the feet with the knees bent.

Vaulting.—Take-off incorrectly made, arms not stretched, knees bent, feet apart, body not properly poised during vault, and landing made too rigid.

# CLASS TAKING

Commands.—The manipulation of the voice is of the utmost importance in giving a command, and the delivery may make all the difference between smart and slovenly work. Clearness, distinctness, and tone are vital adjuncts to a good command, and bawling or unnecessary shouting should be avoided. There should be a firmness which leaves no hesitation on the part of the class as to what is required, and by regulating the tone an indication is given as to how the exercise is to be put into effect.

In the case of a quick movement, the command will denote its type by the sharpness of the delivery and the executive will be issued in a higher tone than the caution, while if the movement is a slow one its type will be expressed by the command being somewhat drawn out and the executive given in a slightly lower tone than the caution. This applies equally when working to numbers.

The actual words used should be as concise and explicit as possible, leaving no doubt in the minds of the students as to what is required, a suitable word being chosen to represent the *executive* upon which the actual movement is put into operation.

It is usually stated that a command consists of two parts, the "caution" and the "executive," and it would certainly seem ludicrous to refer to a pause as forming a third part, and yet the pause between the caution and the executive is so highly important as to make all the difference in a good or inferior command. This can easily be appreciated when it is realised that during this pause the students call up memory and associate certain parts of the body with the instruction received. The need for varying its duration is apparent, as beginners have less to work upon mentally, and lack the co-ordination which students of a fairly lengthy training possess, so that a

longer pause is necessary in the former than in the latter case. This holds good, likewise, with an exercise which has been taught recently or is of such complicated nature as to demand extra mental activity.

The caution should contain contains to prepare the class for the exercise about to be performed. It should not leave any possibility for hesitation or misconstruction, nor should it contain superfluous references likely to confuse the exercise at issue. Confined strictly to essential details, it should furnish the mind with all the facts to enable it to give instructions during the pause and hold the body in readiness for the final word.

The value of the delivery of the executive cannot be overestimated. Smartness, precision, and rhythm all depend upon it. Incorrectly timed, too high or too low in tone, too snappy or too much drawn out, and a faulty execution is almost certain to result.

The following details are essential in every command: (I) the part of the body to be moved; (2) the direction which the movement will take; (3) the type of movement to be performed, e.g., "(I) Left (right) knee (2) forward—(3) bend!" When two or more parts of the body are involved at one time, the leg movement takes precedence to the other parts, or if the arms and trunk are involved at one time the arms take precedence, e.g., "Left foot forward and arms—bend!" or "With arms parting, trunk to the left (right)—turn!" In exceptional cases this order is slightly changed so as to enable emphasis to be placed on a particular movement, or to govern the rhythm, e.g., "With arms upward stretching, feet change—place!" and "With heel raising and head left (right) turning, left (right) arm sideways right (left) arm upward—stretch!"

Until well acquainted with exercises, they are executed to actual word of command, and then to numbers, where the type of movement lends itself, and finally judging the time, e.g., (1) "Arms upward—stretch!" (2) "Arms upward stretching by numbers—one!... two!" (3) "Arms upward stretching, judging the time—commence!"

Where a movement is worked to numbers or judging the time, it may be repeated without giving the full command to the order, "Repeat—stretch!" "Repeat—place!" "Repeat—one!... two (etc.)!" or "Repeat—commence!"

N.B.—All commands should be given so that unilateral exercises are performed an equal number of times on each side in order to secure uniform development.

Demonstrations.—When teaching an exercise for the first time it is extremely important to have it correctly demonstrated before the class. Some exercises will be more advantageously viewed from the side, others from the front, or even from the back. Either the teacher should give a personal exhibition or call upon a student, who shows good form, to execute the movement. During the performance special points should be emphasised, such as "Wrists well down," "Elbows in line with shoulders," "Chest lifted," "Chin in," "Knees well out," "Ankles stretched," etc. etc., and these may again be referred to while the class is at work. During demonstrations the students should "stand at ease," and if it should happen that the class performance is faulty in general, a further special demonstration should be arranged and the particular mistakes dealt with.

Control.—A teacher's own conduct during a lesson will decide largely the discipline of the class. Lack of firmness in securing correct and prompt response to commands will develop inattention and slackness; insufficient acquaintance with the table to be taught will result frequently in hesitancy, which the pupils will not fail to notice, and loss of confidence will ensue. When uncertain of a table it should be written out in abbreviated form on a small piece of card, which can be held in the palm of the hand, and a reference made to this in a discreet manner when necessary. Commands issued in an indecisive manner, and failure to eliminate any sign of carelessness, will speedily incur harmful effects. Impatience or loss of temper on the part of the instructor, together with inadequate discrimination in differentiating between inability and negligence, will cause disrespect, while working a squad without reasonable periods of rest and continual fault-finding takes away all the desire to please, creates disaffection, and makes the training irksome. When working in the open the position of the sun should always be noted, and the class arranged so that it does not strike the back of the neck, or full in the face. Plenty of variety should be introduced into a lesson to prevent monotony. Smartening-up exercises may be given at any stage where there is the slightest tendency to drowsiness or inattention. A change in the direction a squad is facing should occasionally be made.

It should be the aim of a teacher to inculcate respect, and lead rather than drive a class. There should be a readiness to render a little praise when such is due, and to assist backward students who do their best and are anxious to improve.

When standing by for certain exercises on apparatus, a teacher must ever be alert to catch, or break the fall in the event of a student misjudging or misapplying an exercise, and to render help when occasion arises.

Undoubtedly a reflection of the teacher will be found in the squad, and with co-operation existing between teacher and class a confidence will spring up which will have far-reaching results

Corrections.—It has been mentioned repeatedly that the beneficial effects of an exercise will be in proportion to its proper performance, and the correction of faults is an onerous duty falling to an instructor. Firstly, the common errors of general exercises and positions should thoroughly be mastered. and with experience the more vital mistakes will immediately stand out. With the proper detail given in teaching an exercise, and an accurate demonstration, many of the faults which beginners otherwise fall into are avoided. It may happen even that through insufficient stress placed on a certain part, or an explanation not clearly given, incorrect execution is actually encouraged, and it may reasonably be taken for granted that when a fault is more or less general with the whole class the responsibility for same rests with the instructor. Either the exercise is too advanced or adequate care has not been employed in teaching it A teacher must ever be ready to accept the onus for such mistakes, and not lay the blame on the students. A further demonstration showing a particular view. with emphasis where the correction is necessary, or an actual

change made in the exercise if it appears that the fault is due to too rapid advancement having been attempted, should be made.

Corrections should be made personally as well as verbally, and where a student requires putting right a light touch only is usually sufficient to accomplish all that is desired. On the other hand, if access is made to force it will be found that resistance is unconsciously offered, and the fault may even be accentuated. On no account should a whole class be kept in a strained position for a lengthy period, while one or two students are specially corrected, as this may end in the whole class flagging through being unable to maintain the strain, thereby incurring harmful effects both from the physical and disciplinary standpoints.

It should be a rule that the principal faults firstly be eliminated, and when this has been done attention may be centred on the minor ones.

# EXERCISING TO MUSIC

NDER this heading rages a great controversy, it being maintained in some directions that the rhythm of exercise is not the rhythm of music. But what is the rhythm of exercise, and what is the rhythm of music? It is true that certain exercises are performed quickly, others slowly, and in some the positions are maintained, likewise in music the times vary to a similar degree. While the execution of exercise to counts is uniformly recognised, also judging the time, music as a means of marking the rhythm is objected to. Surely, if numbers and time judgment are permitted, there can be no harm in music providing the rhythm, always assuming that suitable music is selected. In the same way that dances are adapted to music, and vice versa, it is submitted that exercises may be adapted to and assisted by music.

This does not imply that a stereotyped time be maintained throughout. Where the movement is of a lively nature the music must be bright, and where a slow trunk exercise or balance is involved the music must again synchronise.

It may be said that this is impossible unless music is specially written to a table or series of exercises, but such a contention will only hold good with those who are unskilled in the adaptation of the one to the other. Is it not a fact that the power of music will make one want to take some form of action either of a vigorous or gentle type, and is this not significant that hidden in psychology lies the answer to this desire for rhythmic movement?

Those who have experienced the working of exercises to music will immediately call up a movement which will respond to a certain strain, because the rhythm harmonises. Likewise will they instantly reject a piece of music because it has no sympathy with the movements they wish to connect up.

What is the rhythm of movement but the rhythm of the

mind, and can it be said that music has no connection with the rhythm of the mind? Is it not possible that pedantry is eliminating one of the most valuable aids to bodily training that exist?

There is, or should be, rhythm in every movement made, whether it be with or without music. The beauty of the one is not devoid of the beauty of the other, and no more conclusive evidence of this can be furnished than by taking a class through a series of movements to word of command, or numbers, and then to carefully selected music. The monotony of the one is speedily and forcibly pronounced by the buoyancy and exhibitanting effect of the other. There may be little ear for music, but the students will not fail to exhibit their feelings when an appropriate accompaniment is provided. Fatigue is undoubtedly minimised, and unless it can be proved that the movements deteriorate in correct performance, precision, or organic effect, this alone justifies the admission of On the other side the stimulating effect is immeasurable. Men will march better to its call, dancing would be lost without it, and is it suggested that these are the only exercises which can be brought within its influence?

There is enough in life that is dull and monotonous without subduing physical training to hard-and-fast laws which tend to make the teacher's voice a bore and exclude the beauty of rhythmic motion. It is not maintained that music should be utilised at every stage to every form of movement, but it is claimed that there is ample justification for its judicious application.

# TABLE MAKING

I N the early career of a teacher one of the greatest difficulties presented is the preparation of tables. Many recognised books issue sets of tables, but these are adapted usually for a particular type of work or class, and in several instances require remodelling in order to meet the special circumstances which, more or less, every class presents. Practice in teaching such tables invariably provides experience, which is the substance of all successful table making, for the earlier a teacher is able to exercise the faculty of initiative the better, although the effort must, of course, be rightly directed.

In setting out to compile tables, it is essential to survey the field of activity. In other words, details must be collected of the students for whom the tables are required, and the work arranged accordingly, no attempt being made to fit the pupils to the exercises. The following information should, therefore, be collected:

I. The Physical and Mental Stage of the Pupils.—When referring to the physical stage, age is fire with taken as a basis, but a cursory glance at any body of students of similar age drawn from any source will quickly prove the fallacy of such a basis, as invariably there will be a wide range of difference in their physique.

Again examine the same twenty students, and even a wider discrepancy will be found in their mental ability.

Physically strong and mentally weak pupils undoubtedly require a type of exercise quite different to mentally strong and physically weak students. In the former instance mentally simple but physically strong work may be taught, and combined commands or complicated exercises cannot be mentally applied, whereas in the latter case easy physical and strong mental exercises will be the more suitable.

Physiological and p-ychological effects must always be

considered conjointly if satisfactory results are to be obtained from physical exercise.

The amount of previous training will enter largely into this matter

2. The Size of a Class.—A material modification is required when dealing with a large class as compared with a small one, for it is essential where the supervision is spread over wide numbers to restrict the exercises to those fairly well known or of an easy character, inasmuch as individual correction is almost out of the question. Further, the area to be covered being wider, more latitude must be allowed to meet the weaker students. With a small class the exercises may be more exacting and progression more rapid.

Opinions differ as to an ideal number for one class, and even this will depend on numerous other circumstances which may be present, e.g., space available, time at disposal, apparatus to hand, etc. However, for ordinary purposes not more than twenty pupils should be allotted one teacher. On the other hand, a very small class has the tendency to lessen the keenness of an instructor and damp the enthusiasm of the students.

3. Space and Apparatus available.—With a limited space available the exercises are likewise limited. The opening of ranks may necessitate some special arrangement in order to utilise every inch to the best advantage. In such circumstances certain exercises are entirely out of the question, games may be impracticable, and yet a teacher with initiative will always find something to take their place to maintain interest. An eighth or quarter turn to the left or right will often open a way for movements which cannot be made facing the front.

Although apparatus is not vital, it provides means for varying exercises and making progression along lines which are not possible in "free standing" work. Tables, then, should be so arranged that pupils are not kept standing about too long awairing a turn, or changed too frequently from one appliance to another, as in this way much valuable time may be lost and interest in a lesson allowed to flag.

- 4. Venue and Weather Conditions.—It is obvious that a lesson taken in a classroom will be quite a different problem to one in a gymnasium, a playground, or an open field, and all these circumstances would again be changed by climatic conditions, a table for a cold day being quite different from that for a warm day. The one would necessitate exercises of a very invigorating type, while the other would demand less exerting movements; at the same time there would be no material difference in the actual stage of the table as a whole, i.e., the one need not necessarily be more advanced than the other.
- 5. Time at Disposal.—Whatever time is allotted to a lesson it should be the aim to cover the whole body and not merely proceed as far as possible with a table. For this feason it is better to have a table too short than too long, as supplementary exercises can more easily be inserted than exercises deleted, the latter in all probability incurring the risk of leaving some parts of the body untouched.

To lengthen a table the "introductory" movements may be extended to include a mild exercise from each group. Two or even three "heaves" may be taken in succession, and still a further one placed after the trunk movements, additional "leg" exercises may be put in between the trunk movements, "marching," "jumping," and "vaulting" may be increased, and the "finishing" exercises lengthened in proportion to the remainder of the table.

To shorten a table the "introductory" movements should be minimised and exercises with dual effect selected, while movements which occasion any waiting about should be excluded. The "finishing" exercises should likewise be reduced.

It is obvious, therefore, that in view of the foregoing very seldom will tables be found to meet all the peculiarities of any one class, making it essential for a teacher to construct or revise tables according to requirements.

Progression being sine quâ non, a record should be kept of all work taken, and once a basic table has been fixed it should be placed in the first column of a sheet capable of holding twelve or more tables, so that when ready for advancement

a further table can be prepared giving due attention to change in type of movement and other special points.

After a table has been selected it should be examined to see that there is sufficient variety, that the exercises are suitably balanced, and that there is not too much changing from one piece of apparatus to another.

When working from one table to another, movements which are well performed should be displaced for the more advanced ones first, and in this manner the new table gradually adopted.

Progression should be made on lines already laid down, a change in type of movement being frequently resorted to in order to avoid monotony, the same type possibly being used in alternate or every third table. This is to apply only to a few exercises in each table, as it is not necessary to change the whole on every occasion.

The principal movements should firstly be inserted, then the introductories, and finally the finishing exercises. The reason for this is that it is impossible to introduce something which is unknown, and to place the introductories prior to the general exercises involves the latter being accommodated to the former, the inconsistency of which does not require dwelling upon.

Several examples of tables meeting certain special conditions, also others of a more general description, will be found in the following pages.

# SPECIMEN TABLES

### ELEMENTARY—WITHOUT APPARATUS

ALL tables commence with "Order Movements," such as Falling in, Attention, Dressing, Numbering, Dressing with Intervals, Opening ranks, Turning, Taking paces forward, backward, and sideways.

# TABLE I

Intro | St: Hd tn.

Wg St: Fcl & op (Fcl & fop).

St: As bd.

Leg St: F forw pl.

A.F. | Wg Wlk (c) St. Hd bkw bd (f b) Hd forw bd.

Heave | St: As sdw str.
Bal | Cl St: Hls rais.
Lat | Wg St: T tn.

Abd St: Mk-tm w Kn forw bd. Std St: As forw & upw swg.

Mch in file.

Games | First & Last. Twos & Threes.

Fin Wd St: F obl forw pl. St: D.B. w As sdw rais.

<sup>\*</sup>These exercises are suitable only for youths and men.

Intro | St. Hd bkw & forw bd.

Wg Wd St: F obl bkw pl.

St. As bd to Rst.

Leg | Bd St: Hls rais.

A.F. | Wg Std St: T bkw bd (f b) T forw & dnw bd.

Heave | St : As upw str.
Bal | Yd St : L sdw rais.

Lat Wg Wlk (c) St: T sdw bd Abd St: Mk-tm w Kn forw bd. Dor St: As sdw & upw swg.

Mch in rank.

Games Twos & Threes. Cat & Mouse (circle).

Fin Wg St · F forw pl.

St · As forw bd.
St · D.B. w Hn tn.

# TABLE 3

Intro | Wg St: Hd sdw bd.

Bd St: Hls rais. Rch St: As part.

Leg St: Hls rais & Kns bd.

A.F. Bd St: T bkw bd (f b) T forw & dnw bd.

Heave | Cl St: As sdw & upw str.

Bal Rst St: Kn bkw bd.
Lat Bd Std St: T sdw bd.
Abd St: Mk-tm w Kn forw bd.
Dor Wg Std St: T forw bd.
Mch Mch in file & w ch step.

Games | Cat & Mouse (circle). Relay Race.

Fin | Wg Wlk (c) St: Hd tn.

Yd (b) St: As flg. St: D.B. w Hls rais.

Intro | Wg St: Hd tn.

Cl St: Hls rais. Yd (b) St: As flg.

Leg Bd St: F forw & sdw pl.

A.F. | Wg Cl St: T bkw bd (f b) T forw & dnw bd

Heave St: As forw sdw & upw str. Bal Yd Wlk (a) St: Hls rais.

Lat Bd St T tn.

Abd Bk Ly: Alt Kn forw bd (or) Rst St: Mk-tm w Kn

forw bd.

Dor Wg St: T forw bd.

Mch in file & w abt tn.

Run Dbl mch (½ min) (f b) Mch.

Games | Chase Ball. Jp Swg Rope. Fin | Wd St: Fobl forw pl.

Rch St: As part.

St: D.B. w As sdw rais.

### TABLE 5

Intro | Wg St: Hd bkw & forw bd.

Bd St: F forw & sdw pl.

Yd St: As upw swg.

Leg | Rst Wd St: F obl forw pl w Hls rais.

A.F. | Bd Cl St: T bkw bd (f b) Str St: T forw & dnw bd.

Heave St: As forw upw sdw & dnw str. Bal Wg St: Hls rais & Kns f bd.

Lat Yd Std St: T sdw bd.

Abd  $\frac{1}{2}$  Crk (a) Bk Ly: Kn forw str & low (or) St: Mk-tm

w Kn forw bd & As dnw str.

Dor | Yd (b) St : Alt A flg (4) (2).

Jump | St: Prep to jp.

Mch Mch in rank & w ch step. Run Dbl mch ( $\frac{1}{2}$  min) (f b) Mch.

Game Tower Ball.
Fin Wg St: Hd tn.

St: As forw & upw rais. St: D.B. w Hls rais.

Intro | Bd St: Hd sdw bd.

Wg Std St: Hls rais.

St: As forw & sdw swg.

Leg Bd St: Hls rais & Kns f bd.

A.F. | Rst Std St: T bkw bd (f b) T forw & dnw bd.

Heave | Wlk (a) St: As sdw upw forw & dnw str (twice each

direction).

Bal Yd (b) St: L sdw rais w (slow) As flg.

Lat Wg Walk (b) St: T tn. Abd Kn: T fl (slightly).

Dor | Yd (b) St : Alt A flg w Hd tn (4) (2).

Jump | St: Upw jp.

Mch in rank & w abt tn, also, w ch step.

Games | First & Last. Relay Race.

Fin | Rst St : F sdw pl

St: As sdw & upw rais.

Wg St: D.B. w Hd bkw bd.

# TABLE 7

Intro | Yd St: Hd bkw bd.

Wg St: F forw pl w Hls rais.

Bd St: As sdw str.

Leg Dg Toe St: Kns bd w Hn cl.

A.F. Yd St: T bkw bd (f b) Str St: T forw & dnw bd.

Heave St: As forw & upw str w tn l & r.

Bal  $Wg \frac{1}{2} Crk (b) St$  Kn bkw str.

Lat Rst St: T sdw bd.

Abd Wg Std Kn: T fl.

Dor Bd Stp (a) St: Hd tn.

Jump St: Std ip.

Mch Mch & form outlines, also, w Hls rais

Games | Bean Bag Race. Tunnel Ball.

Fin Bd St: Hd sdw bd.

Rst Wd St: F obl bkw pl. Rch St: D.B. w As part.

### Table 8

Intro | Wg St: F cl & op w Hd tn.

Bd St: Hls rais & Kns bd.

Str St: As part.

Leg Wg St: Forw lge.

A.F. Yd St: T bkw bd w Hn tn (f b) Str St: T forw &

dnw bd.

Heave | St: As forw sdw upw & dnw str w tn 1 & r

Bal  $Wg \frac{1}{2} Crk (b) St : Kn forw bd.$ 

Lat | Bd Wlk (a) St: T tn.

Abd Bk Ly: Alt L forw rais (or) Bd St: Mk-tm w L

forw rais.

Dor Yd (b) Std Stp (a) St: As flg. Jump St: Std jp w As sdw swg.

Mch & form outlines, also, w As str.

Run
Games
Twos & Threes. Chase Ball.
Dg St: Hls rais w Hn cl.

Rch St: As upw swg. Wg St: D.B. w T sdw bd.

# Table 9

Intro | St: Hn tn w Hd bkw bd.

Yd (b) St: F sdw pl w As flg.

Wg St T forw bd.

Leg Bd Std Toe St: Alt Kn bd (4) (2).

AF. Rst Wlk (a) St: T bkw bd (f b) T forw & dnw b.

Heave | St: F forw pl w As upw & dnw str.

Bal  $Wg \frac{1}{2} Crk (a) St : Kn sdw str.$ Lat Bd Wlk (a) Tn St : As sdw str.

Abd Rst Bk Ly: Alt L forw rais (4) (2) (or) Bd St: Mk-

tm w L forw rais & As upw str.

Dor | Bd St: Forw lge.

Jump | St: Upw jp w As sdw swg.

Mch in dbl file & form fours, also, Mch w Hls rais

Games | Relay Race. Touch Ball.

Fin Wg Wlk (c) St: Hls rais w Hd tn.

Rch St: As part. St: D.B. w As circ

### TABLE TO

Intro | Wg St: F cl & op w Hd sdw bd.

Bd St: F forw pl w As upw str.

Rst Cl St: T tn.

Leg Yd Wlk (b) St: Hls rais & Kns bd.

A.F. | Yd (b) St: T bkw bd w (slow) As flg (f b) Rst Std

St: T forw & dnw bd.

Heave | St: F cl & op w As sdw upw forw & dnw str.

Bal Rch  $\frac{1}{2}$  Crk (a) St: Kn bkw str w As part.

Lat Wg Wd St: Obl forw lge.
Abd St: Spg to Fnt Ln Rst.

Dor | Stp (a) St: As forw & upw swg.

Jump | St. Forw jp.

Mch Mch & form line, also, w As part.

Run | Dbl mch (r min) (f b) Mch.

Game | Tower Ball.

Fin Rst St: F sdw & bkw pl.

St: As sdw & upw rais. Bd St: D.B. w T sdw bd.

### TABLE II

Intro | Yd St: Hls rais w Hd tn.

St: As sdw & upw str w tn 1 & r.

Wg St · T sdw bd.

Leg Rch Std Toe St Alt Kn bd w As part.

A.F. | Bd St: T bkw bd w (slow) As upw str (f b) Str St:

T forw & dnw bd.

Heave | St: W 2 sd steps As forw & sdw str.

Bal  $Yd(b) \stackrel{1}{2} Spn(b) St$ : As flg.

Lat Wg St: Sdw lge.

Abd | Fnt Ln Rst: Alt F forw pl.

Dor | Bd St: T forw bd w (slow) As upw str.

Games | Jp Swg Rope. Dodge Ball.

Mch Mch & form outlines, also, w Hls rais & Kns bd.

Run | Dbl mch (I min) (f b) Mch.

Fin Bd St: Hd sdw bd. Rst Cl St: T tn.

St: D.B. w Hls rais & As circ.

Intro | Wg St: Hls rais w Hd bkw bd.

Rch St: Alt As sdw & upw swg.

Bd Wlk (b) St: T tn.

Leg Yd Spg (b) St: Hn tn.

A.F. Str Std St: T bkw bd (f b) T forw & dnw bd.

Heave St: W 4 forw steps As forw upw sdw & dnw str.

Rch ½ Crk (a) St: Kn bkw str w As upw rais.

Lat \\ \frac{1}{2} \text{ Bd } \frac{1}{2} \text{ Wg Sd Bd St : A upw str.}

Abd Rst  $\frac{1}{2}$  Kn: T fl.

Dor Games | Yd (b) St: Bk lge w As flg. Hopping Race. Jp Swg Rope.

Mch Mch w whl.

Run Dbl mch (I min) (f b) Mch. Fin Rst Walk (a) St: Hls rais.

Wg St: T forw bd.

St: D.B. w As sdw & upw rais.

### MEDIUM ADVANCED WORKING TO ADVANCED

### TABLE I

Intro | Wg St: F cl & op w Hd tn.

Wd St: F obl forw pl w As forw & sdw swg.

Rst Cl St: T tn.

Leg Bd St: F forw & sdw pl w Hls rais.

A.F. Yd Std St: T bkw bd (f b) Rst Std St: T forw & Heave St: As forw upw sdw & dnw str.

Bal Rst St: Kn forw bd.

Lat  $\frac{1}{2}$  Bd  $\frac{1}{2}$  Wg Wlk (b) St: T sdw bd. Abd Wg Bk Ly: Alt L rais (4) (2).

Dor | Yd (b) Stp (a) St: Alt As flg (4) (2).

Jump | St: Upw jp w As forw swg. Mch | Mch w ch step & w Hls rais.

Run Dbl mch in file (1 min) (f b) Mch. Games \*Circular Tug. Heads & Tails

Fin Bd Std St.: Hd sdw bd.

Rch St: As part.

Wg St: D.B. w Hls rais.

Intro | St: As sdw rais w Hd bkw bd.

Bd Wd St: F obl forw pl w Hls rais.

Wg St: T sdw bd.

Leg | Rch Toe St: Kns bd w As part.

A.F. | Yd (b) St: T bkw bd w (slow) As flg (f b) Str St:

T forw & dnw bd.

Heave | St: As sdw bkw upw forw & dnw str (twice each

Bal Bd  $\frac{1}{2}$  Crk (a) St: F bd & str. [direction).

Lat Rst Std St: T tn. Abd Str Bk Ly: Ls rais.

Dor | Yd Wlk (a) Stp (a) St : As sdw str.

Jump | St: Forw jp.

Mch Mch & form 4s & whl.

Games | Heads & Tails. Bean Bag or Club Race.

Fin Wg St · Hls rais w Hd tn.

½ Str ½ Dg St: As ch. Rst St: T forw bd. St: D.B. w As sdw rais.

# TABLE 3

Intro | Bd St: F cl & op w Hd sdw bd.

½ Str ½ Rch St: As ch. Rst Std St: T sdw bd.

Leg Yd Std St · Hls rais & Kns bd. [forw & dnw bd.

A.F. Bd Wlk (b) St: T bkw bd w As sdw str (f b) T

Heave St: F forw & sdw pl w As forw & sdw str.

Bal Rch ½ Crk (a) St: Kn bkw str w As upw rais.

Lat  $Yd(\bar{b})$  Cl St: T tn w (slow) As flg.

Abd | Fnt Ln Rst: Hd tn.

Dor | Bd Lge (a) St: As sdw str.

Jump St: Upw jp w As forw & upw swg.
Mch Mch in file w Hls rais; & tn into rank.

Run | Dbl mch (I min) & w Kn forw bd (f b) Mch.

Games | Twos & Threes. \*Out of Circle.

Fin Rst Wlk (b) St: Hls rais.

Yd (b) Stp (a) St: As flg.

 $\frac{1}{2}$  Wg  $\frac{1}{2}$  Rst St: T tn. St: D.B. w As circ.

Intro | Rch St: F sdw pl w Hls rais.

Yd (b) St: As flg w Hd tn.

Bd Wlk (b) St: T tn.

Leg | Wg Lge (a) St: F ch.

S.B. Rst Elb Sup Std S B. St: Hls rais (f b) T forw & dnw Heave St. As forw sdw upw & dnw str w tn 1 (r) \[ \begin{aligned} \text{bd.} \end{aligned} \]

Bal Yd St: L sdw rais w As upw rais. Lat Fnt Ln Rst: Tn to Sd Ln Rst.

Abd Bd & Kn: T fl.

Dor | Lge (a) St · As forw & upw swg.

Jump | St: Bkw jp

Mch Mch & form outlines & w Kn forw bd.

Run Dbl mch (1½ min) (f b) Mch. Games \*Crab Race. Touch Ball.

Fin Rch Wlk (a) St: Hls rais w As part.

Str St: T forw bd.

St: As forw & sdw str w tn 1 & r.

Wg St: D.B. w Hd tn.

TABLE 5

Intro | Dg Wlk (a) St: Hn tn w Hd bkw bd.

Rch St. Hls rais w alt As upw & sdw swg.

½ Rst ½ Wg St: T sdw bd.

Leg Bd Lge (a) St: As sdw str. [T forw & dnw bd. A.F. Yd Bk Sup Ar St: As upw rais (f b) Rst Cl St:

Heave | St: Forw & sdw step w As forw & upw str.

Bal  $Yd(b) \frac{1}{2} Spn(b) St$ : As flg. Lat  $\frac{1}{2} Wg Sd Ln Rst$ : A ch to Bd

Abd | Rst Kn: T fl.

Dor Jump Bd Stp (a) St: As upw str. St: Upw jp w tn 1 & r.

Mch Mch & form outlines, & w hop.

Run Dbl mch (1 min) & w L forw rais (f b) Mch.

Games \*Circular Tug. Hawks & Doves Fin Yd Std St: Hls rais & Kns bd.

½ Str ½ Rch St: As ch.

 $\frac{1}{2}$  Str  $\frac{1}{2}$  Rch St: As ch. Wg Wlk (b) St: T tn.

St: D.B. w As forw & upw rais.

Intro , Bd Std St: Hls rais w As forw str.

Yd (b) Stp (a) St: Hd tn. Rch Cl St: T tn w As part.

Leg Rst Wlk (c) Toe St: Alt Kn bd. [dnw bd S.B. Str Wr Sup S.B. St: Hls rais (f b) Str St: T forw &

Heave | St: Forw step & abt tn w As upw & sdw str.

Bal Wg ½ Spn (a) St: F bd & str.

Lat Rst Wlk (a) St: T sdw bd.

Abd Fnt Ln Rst: Alt L bkw rais.

Dor Yd (b) Lge (a) St: As flg.

Jump St: Upw jp w As sdw swg.

Mch Mch & form Cr & Di, also, w Hls rais & Kns bd.
Run Dbl mch in file & ch into rank (1 min) (f b) Mch.

Games | Jp Swg Rope. \* Leap Frog.

Fin Yd Wlk (b) St. Hn tn w Hd bkw bd.

Rch St: Alt As upw & dnw swg.  $\frac{1}{2}$  Bd  $\frac{1}{2}$  Wg Wlk (c) St: T sdw bd. Str St: D.B. w Hls rais & As part.

# TABLE 7

Intro | Yd Wlk (a) St: Hls rais w Hn tn.

Bd St: As forw str w Hd tn.

Str St: T tn w As part.

Leg Rch Std Toe St: Alt Kn bd & As upw rais.

A.F. Rst Bk Sup Ar St: Alt Kn forw bd (f b) Str Wlk

(d) St: T forw & dnw bd.

Heave St: Alt As upw & forw, sdw & upw str.

Bal Bd ½ Crk (a) St: Kn bkw str w As upw str.

Lat Yd Std Tn St: T sdw bd. Abd Fnt Ln Rst: Alt A upw rais.

Dor Rch Lge (a) St: Alt As upw & bkw swg.

Jump St: Std jp w As sdw swg.
Mch Mch w whl & w hop (alt F).

Run
Games
Relay Race. Chase Ball (in ranks).

Yd (b) St: As flg w Hd bkw bd.

Rst St: T forw bd.

Wg St: D.B. w Hls rais & Kns bd.

Intro, Rch St: As part w Hd bkw bd.

Wg St: Hls rais & Kns bd. \$\frac{1}{2} \text{ Str } \frac{1}{2} \text{ Wg Std St: T sdw bd.}

Leg Rst Lge (b) St: H1 rais.

A.F. Bd Loin Sup Ar St: Alt L forw rais (f b) Str Wlk

(a) St: T forw & dnw bd.

Heave St: F forw pl w alt As forw & upw str. Bal Yd ½ Crk (a) St: Kn sdw str w Hd tn.

Lat  $Str \frac{1}{2} Kn : T tn w As part.$ Abd  $Rch \frac{1}{2} Kn : T fl w As rais.$ 

Dor Yd (b) Wlk (c) Stp (a) St: As flg w Hd tn.

Jump | St: Upw jp w L part & As sdw swg.

Mch Mch in sects & w As str.

Run Dbl mch  $(1\frac{1}{2} \text{ min})$  & form figs (f b) Mch.

Games \*Run the Gauntlet. Tunnel Ball. Fin Yd Std St: Hls rais w Hn tn.

Bd Cl St: T tn.
Rch ½ Yd St: As ch.

St: D.B. w As sdw & upw rais.

# TABLE 9

Intro | Yd Cl St: As bd w Hd sdw bd.

Bd St: F forw pl w Hls rais & As upw str.

Rch Wlk (b) St: T tn w As part.

Leg Yd (b) Lge (a) St: Hl rais w (slow) As flg.

A.F. Str Std Ar St: As bd (f b) Str St: T forw &

dnw bd.

Heave \ \frac{1}{2} \text{Str } \frac{1}{2} \text{ Dg St}: Forw & bkw step w As ch.

Bal Rst  $\frac{1}{2}$  Crk (b) St: Kn forw bd & str.

Lat  $\frac{1}{2}$  Bd  $\frac{1}{2}$  Wg Spn (b) F Sup  $\frac{1}{2}$  Kn: T sdw bd w As upw

str.

Abd | Fnt Ln Rst: As bd.

Dor | Yd St: T forw bd w As upw rais.

Jump | St: Forw jp w tn l (r); \*Leap Frog.

Mch in sects & in Spg (a).

Run Dbl mch in tactics (2 mins) (f b) Mch

\*Frog Hop. Touch Ball (circ). Games Dg St: F forw pl w Hn tn. Fin

Rch Std Toe St: Alt Kn bd w As upw rais.

Rst Cl St: T sdw bd.

St: D.B. w As sdw rais & Hd tn.

### TABLE TO

Intro Wg Toe St: Kns bd w Hd tn.

St: As forw & sdw str w tn 1 & r.

Yd(b) Stp(a) St: As flg.

Bd St: Forw Lge w As upw str. Leg

Str Wlk (b) Ar St: F ch w As upw str (f b) Str A.F.

Wlk (b) St: T forw & dnw bd.

1 Rch 1 Yd St: Sd step w As ch. Heave

Dg ½ Spn (c) St: Kn forw bd w As forw & Bal

upw swg.

Yd Lge (c) St: As upw rais. Lat

Abd Rch Fl ½ Kn: As part. Wg Forw Ly: T bkw bd. Dor

St: 3 steps forw, forw jp w tn l (r) (single Jump

take-off).

Mch & form Stars & Sq & w hop (alt F). Mch

Dbl mch in tactics (2 mins). Run

\*Fireman's Lift, or \*Pick-a-back Race. Hand Tag. Games

Bd Toe St: Kns bd w As upw str. Fin Yd Wlk (a) St: Hn tn w Hd bkw bd.

Rch St: Alt As upw & bkw str. St: D.B. w T tn & As sdw rais.

# TABLE II

Bd Std Toe St: Alt Kn bd. Intro

Rch St: Alt As upw & dnw swg. Yd (b) Std Stp (a) St: Alt As flg.

1 Bd 1 Wg Lge (c) St: Hl rais w A upw str.

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A.F. | Str Loin Sup Ar St: Alt Kn forw bd w As bd (f b)

Rst Cl St. T forw & dnw bd.

Heave  $\frac{1}{2}$  Str  $\frac{1}{2}$  Rch St : As ch w abt tn.

Bal Wg Lge (e) St: L bkw rais.

Lat Yd Tn St: T sdw bd w As upw rais.

Abd Bd Fl Kn: As upw str.
Dor Rst Forw Ly: T bkw bd.

Jump | Rch St: Upw jp w L & As part; \*Leap Frog.

Mch & form line, whl, & hop (alt F) w alt A forw &

upw swg.

Run Dbl mch & form figs, & w L forw rais (1 b) Mch.

Games | Dodge Ball. Overhead Ball.

Fin Bd St: Hd sdw bd.

St: Hls rais w As circ. Rst St: DB. w T tn.

### TABLE 12

Intro | Wg Spg (a) St: Hd bkw bd.

St: Alt As forw & sdw str.

 $\frac{1}{2}$  Str  $\frac{1}{2}$  Bd St : T sdw bd.

Leg Yd (b) Lge (d) St: (slow) As flg.

A.F. Bd Bk Sup Ar St: Alt L forw rais w As upw str

(f b) Str Wlk (a) St: T forw & dnw bd.

Heave | Cl St: F forw pl w alt As upw & sdw str.

Bal | Wg St: L hor sdw rais & T sdw bd.

Lat  $\frac{1}{2}$  Bd  $\frac{1}{2}$  Wg Wlk (a) Tn Sd Bd St: A upw str.

Abd Yd Fl  $\frac{1}{2}$  Kn: Hn & Hd tn. Dor Str Cl Stp (a) St: As part.

Jump | St: Upw jp w tn abt & As forw & upw swg; \*Leap

Frog.

Mch Mch w ch rank, & hop in Spg (b).

Run | Dbl mch in tactics (3 mins)

Game Tower Ball.

Fin Rch St: F sdw pl w As upw swg

Yd (b) St: T tn w (slow) As flg.

St: As upw & sdw str w tn. St: D.B. w Hls rais & As circ

# ELEMENTARY TO MEDIUM ADVANCED—WITH APPARATUS

### TABLE I

Intro | Wg St: Hd bkw bd.

Bd St: F forw pl.

St: As upw & dnw str.

Leg  $\frac{1}{2}$  Wg Sd Tow Gsp  $\frac{1}{2}$  Spn (a) St: H1 rais (W.B,

P.B., Bm).

A.F. Wg Loin Sup St: T bkw bd (P.B., Bm).

Wg Std St: T forw & dnw bd.

Heave Tow St: Ov-gp Fl Hg (P.B., Bm, H.B.).

Tow St: Spg to Ov-gp Fnt Rst (P.B., Bm, H.B.).

Bal | Sd Tow St · Mt to Yd Bal St (Bm, Bch).

Lat Bd Rid Sitt: T tn (Bch).

Abd  $Wg \frac{1}{2} Spn (a) F Sup St : T fl (Bm, Bch).$ 

Dor | Yd(b) St : T forw bd.

Heave | Tow St: Ov-gp Ar Hg (Bm, P.B., W.B.).

Jump St: Upw jp. Mch in file.

Run | Dbl mch in file (½ min) (f b) Mch. Games | Fill the Gap. Hawks & Doves.

Fin Wg St: F cl & op w Hd tn.

Rch St: As part. Dg St: D.B. w Hn tn.

### TABLE 2

Intro | Rst St: Hls rais.

Bd St · Hd bkw & forw bd.

Rch St: As upw swg.

Leg  $Wg \frac{1}{2} Crk (b) Istp Sup St : Kn bd (W.B., Bm).$ 

S.B. Yd Std Ar St: T fl w Up-A sup.

Bd St: T forw & dnw bd.

Heave Ov-gp Fl Hg. F bkw pl (Bm, P.B, H.B.).

Ov-gp Fnt Rst: Hd tn (Bm, P.B., H B.).

Bal | Tow St: Mt to Rch Bal Sd St (Bm, Bch).

Abd St: Spg to Fnt Ln Rst (Bch).

St: T forw bd w As sdw rais.

Heave Ov-gp Hg: Dp Jp (W.B., Bm).

Vault | Fnt Rst: Dsmt w Ls bkw swg (H., P.B., Bm).

Mch Mch in rank.

Run Dbl mch in file & rank  $(\frac{1}{2} \text{ min})$  (f b) Mch.

Games \*Crab Race. Heads & Tails.

Fin Rst St: F sdw pl. Yd (b) St: As flg.

Wg St: D.B. w Hd tn.

## TABLE 3

Intro | Wg Cl St: Hd sdw bd.

Rch St: F sdw pl. St. As sdw & upw str.

Leg  $\frac{1}{2}$  Bd Sd Tow Gsp  $\frac{1}{2}$  Spn (b) St. Hl rais (W.B., P.B.,

Bm).

S.B. Rst Ar St: T fl w Elb sup.

Rst St: T forw & dnw bd.

Heave | Inw-gp Betw Rst: Hd tn (P.B.).

St: Spg to Ov-gp Hg (Bm, H.B.).

Bal Yd Bal St: F forw & bkw pl (Bm, Bch).

Lat | Str Cl St: T tn w As part.

Abd Wg Sitt: T fl (Bch).
Dor St: Forw Ly (Bch).

Heave | Tow St: Alt-gp Ar Hg (W.B., Bm, P.B., H.B.).

Jump | St: Forw jp.

Mch & form outlines of letters.

Run Dbl mch w Kn forw bd in file  $(\frac{1}{2} \text{ min})$  (f b) Mch.

Games | Chase Ball. \*Push & Go. Fin | Bd Wd St: F obl forw pl.

Rch St: As upw swg.

Yd St: D.B. w Hd bkw bd.

## TABLE 4

Intro | Bd Cl St: Hls rais.

Wg St: T tn

Yd (b) Std St: As flg.

Leg  $Wg \frac{1}{2} Crk (b)$  Istp Sup St: Kn bd w Hd tn.

S.B. Str Gsp Std St Forw step to S.B. (W.B., Bm).

Str Std St: T forw & dnw bd.

Heave | Ov-gp Ar Hg: F forw & bkw pl (W.B., Bm, P.B.,

H.B.).

Inw-gp Betw Rst: Alt Kn forw bd (4) (P.B.).

Bal Rch Bal Sd St: F sdw pl (Bm, Bch).

Lat | Bd ½ Spn (b) F Sup St: T sdw fl (Bm, Bch,

, W.B)

Abd Rst Bk Ly: Alt L rais (4).

Dor | Wg St: Forw lge.

Heave | St: Spg to Alt-gp Hg (Bm, H.B., H.L.).

Jump St: Std Jp. Mch & form 4s.

Run Dbl mch in file & rank (½ min) (f b) Mch.

Games | First & Last. Jp Swg Rope. Fin | Yd St: Hn tn w Hd bkw bd.

Rch St: As part.

Rst St: D.B. w Hls rais.

## TABLE 5

Intro | Rst Wd St: F obl forw pl.

St: As forw & sdw str.

Wg St: T sdw bd.

Leg Yd Std St: Hls rais & Kns bd.

S.B. | Bd Bk Sup Ar St: As upw str (Bm, P.B.).

Bd Cl St: T forw & dnw bd.

Heave | Ov-gp Fl Hg: Hd tn (Bm, P.B, H.B).

Inw-gp Betw Rst: Alt L forw rais (4).

Bal Yd Bal St. Forw mch (Bm, Bch).

Fnt Ln Rst: Tn to \( \frac{1}{2} \) Wg Sd Fl (Bch). Lat

Abd Rst Kn: Tfl.

Yd (b) Wlk (b) St: T forw bd w (slow) As flg. Dor Heave Ov-gp Hg: Forw & bkw swg (H.B., Bm, H.L.).

Kn: Kn Spg, also, Hi St: Dp Jp (H.). Vault

Mch Mch w ch step & Hls rais.

Dbl mch & form outlines (I min) (f b) Mch. Run

Tunnel Ball. \*Circular Tug. Games Bd St: F sdw pl w Hls rais. Fin Dg St: As forw & sdw swg. Rch St: D.B. w As rais.

TABLE 6

Dg St: Hn & Hd tn. Intro

Rch St: F forw & bkw pl w As part.

Bd St: T tn.

Wg & Spn (a) F Sup St: Kn bd. Leg Yd Up-A Sup S.B. St: Hls rais. S.B.

Rst Cl St: T forw & dnw bd.

Ov-gp Hg: Sd trav (Bm, HB., H.L.). Heave

Sd Tow St: Spg to Inw-gp Bk Rst (H., P.B.,

Bm).

Yd (b)  $\frac{1}{2}$  Crk (a) Sitt · As flg (P.B., H.B., Bm). Bal

Lat Bd Sd Tow Th Sup St: T sdw bd w As upw str

(Bm).

Fnt Ln Rst: Hd tn. Abd

St: Forw Lge w As sdw rais. Dor

Heave Ov-gp Fl Hg: As bd (Bm, H.B., P.B).

Vault war Hor Fnt V to Rid Sitt: Dsmt w Ls bkw

swg (H.).

Mch Mch w abt tn & whl.

Dbl mch & form outlines (r min) (f b) Mch. Run

Games Dumb-bell Race. Hand Tag. Fin

Yd Wlk (d) St: Hls rais w Hn tn. Bd St: Alt As forw & sdw str.

Wg St: D.B. w Hd bkw bd.

## TABLE 7

Intro | Bd Std St: Hd sdw bd.

Yd St. F cl & op w Hn tn.

Wg St. T forw bd.

Leg Yd Std Toe St: Alt Kn bd. SB. Rst Hd Sup S.B. St: Hls ra

Rst Hd Sup S.B. St: Hls rais. Bd Wlk (a) St: T forw & dnw bd.

Heave Inw-gp Betw Rst: Forw & bkw swg (P.B.).

Ov-gp Hg: As bd (H.B., Bm, H.L.).

Bal Yd Sd Sitt:  $\frac{1}{4}$  tn to  $\frac{1}{2}$  Crk (a) Sitt (P.B., H.B.,

Bm).

Lat  $Rch \frac{1}{2} Kn : T tn w As part.$ 

Abd  $\int \text{Rst } \frac{1}{2} \text{ Spn } (a) \text{ F Sup St} \cdot \text{ T fl } (W.B., Bm, Bch).$ 

Dor Wg Forw Ly: Hd tn (W.B., Bch). Heave Inw-gp Fnt Rst: L sdw rais (H.).

Vault | war Spg to ½ Spn (b) Fnt Rst, tn to Fnt Ln Rst:

Dsmt w L bkw swg (H.).

Mch in file & form line & whl.

Run Dbl mch w Kn forw bd (1 min) (f b) Mch.

Games \*Running the Gauntlet. Touch Ball.

Fin | Str Cl St: As part.

Dg St: As forw & upw swg.

Bd St: D.B. w Hls rais.

## TABLE 8

Intro | Yd (b) St : Hls rais w As flg.

St: As forw upw sdw & dnw str.

Dg St: T tn w Hn tn.

Leg Wg ½ Spn (a) F Sup St: Hl rais & Kn bd. S.B. Str Std Ar St: T fl to S.B. (W.B., Bm).

Str Std St: T forw & dnw bd.

Heave Ov-gp Hg · As bd w Hd tn (H<sub>a</sub>B., Bm, H.L.).

Inw-gp Betw Rst · Swg to Fnt Ln Rst (P.B.).

Bal Wg Bal St: Bkw mch (Bm., Bch).

Lat  $\frac{1}{2}$  Bd Sd Ln Rst: A upw str.

Abd | Str Crk (a) Bk Ly: Kns forw str & Ls low.

Dor Yd (b) Forw Ly: T bkw bd.

Heave Ar Hg: As bd (W.B., Bm, P.B., H.B.).

Jump | war Hi Jp off 1 (r) F (J.R.).

Mch Mch in sects.

Run | Dbl mch in file & w L forw rais (1½ min) (f b) Mch.

Game | Tower Ball.

Fin ½ Str ½ Rch St: As ch.

Rst Wd St: F obl forw & obl bkw pl.

St: D.B. w As circ.

## TABLE 9

Intro | Wg Wlk (a) St: Hd bkw bd.

Yd Std St: Hls rais w As upw rais.

½ Rst ½ Wg St: T sdw bd.

Leg Bd St: Forw Lge w As sdw str.

A.F. Yd (b) Loin Sup Ar St: As flg (Bm).

Str Cl St: T forw & dnw bd.

Heave Inw-gp Betw Rst: Forw & bkw swg to ½ Crk (a)

Sitt (P.B.).

Inw-gp Obl-upw Hg: L swg (O.R.).

Bal Rch Bal Sd St: As upw rais (Bm, Bch).

Lat | Bd Rid Tn Sitt: As sdw str (Bch).

Abd Fnt Ln Rst: L bkw rais.

Dor | Wlk (a) Stp (a) St: As forw & upw swg.

Heave Ov-gp Fl Hg: Alt L rais w As bd (Bm, H.B.,

P.B.).

Jump | war Long Jp.

Mch whop & form outlines.

Run | Dbl mch in file & ch into rank (2 mins).

Games \*Circular Tug. Dodge Ball.

Fin Wg St: Hls rais & Kns bd.

½ Str ½ Yd St: As ch. Rch St: D.B. w As part.

#### TABLE 10

Intro | Rst St: F sdw pl w Hls rais.

½ Rch ½ Yd St: As ch.

Wg St: T forw bd w Hd tn.

Leg Bd Wd St: Obl forw lge w As bkw str.

S.B. St: Hls rais.

Rst Wlk (b) St: T forw & dnw bd.

Heave Ov-gp Hg: Alt L forw rais (2) (H.B., Bm, W.B., H.L.).

Un-gp Fl Hg: As bd (Bm, P.B.).

Ov-gp Fnt Rst: Sd trav w tn to Bk Rst (Bm, P.B.,

H.B.).

Bal 1 Crk (a) Sitt: Bkw Mt to Bal St (Bm.).

Lat Yd(b) Spn (b) F Sup  $\frac{1}{2}$  Kn : T sdw fl w (slow) As flg.

Abd Bd 2 Spn (a) F Sup St: T fl w (slow) As upw str

(W.B., Bch).

Dor Rst Forw Ly: T bkw bd (W.B., Bch).

Heave Inw-gp Fnt Rst: 1 & r L fe circ (H.).

Inw-gp Obl-upw Hg: Clb Hd 1st (O.R.).

Vault | w a r Betw V, Hor Fnt V (H.).

Mch | Mch in sects, & w Kn forw bd.

Run Dbl mch & form figs (2 mins) (f b) Mch.

Games | Chase Ball. Hand Tag.

Fin Yd St: F sdw pl w Hls rais.

Rch St: T tn w As part.

St: D.B. w As forw & upw rais.

#### TABLE II

Intro | Bd Cl St: Hls rais w Hd sdw bd.

Yd Std St: As forw & upw swg.

Rch St: T tn w As part.

Leg | Rst ½ Crk (b) Istp Sup Spg (a) St: Hd tn.

S.B. | Bd Hd Sup Ar St: Hls rais.

Str St: T forw & dnw bd w As bd.

Heave | Sitt: Hor clb Hd 1st (W.L.).

Ov-gp Ar Hg: As bd (W.B., Bm, P.B., H.B.).

Inw-gp Betw Rst: Forw & bkw swg w forw trav on

forw swg (P.B.).

Bal Yd Bal St: Forw mch w Kn forw bd (Bm, Bch).

Lat  $\frac{1}{2}$  Rst  $\frac{1}{2}$  Wg Lge (c) St: F & As ch. Abd  $\frac{1}{2}$  Kn: T fl w (slow) As flg.

Dor Bd Ar Forw Ly: As sdw str.

Heave Inw-gp Fnt Rst:  $1 L r & 1\frac{1}{2} circ$ :  $r L r & 1\frac{1}{2} circ$  (H.).

\*Ov-gp Hg: Circ to Fnt Rst (H.B., Bm).

Vault | w a r Sit-ov V (H., P.B., Bm).

Mch Mch & form Cr & Di.

Run Dbl mch in file & ch into rank (3 mins) (f b) Mch.

Games \*Circular Tug. Heads & Tails.
Fin Str St: As forw & sdw swg.
Bd St: Hls rais & Kns bd.

Dg St: His rais & Kns bd.
Dg St: D.B. w Hn & Hd tn.

### TABLE 12

Intro | Bd Wd St: F obl forw pl w As upw str.

Yd (b) St: As flg w Hd tn.

Str Std St: T sdw bd w As part.

Leg  $\operatorname{Rch} \frac{1}{2} \operatorname{Spn} (b)$  F Sup Spg (a) St: As upw swg (W.B.,

Bm).

S.B. Rst Elb Sup S.B. St: Alt Kn forw bd.

Yd St: T forw & dnw bd w As upw rais.

Heave | Ov-gp Hg. Rot trav (H.B., Bm, H.L.).

Tow St: Vert clb (V.R.).

Inw-gp Betw Rst: Forw & bkw swg w bkw trav on

bkw swg (P.B.).

Bal Bd Bal St: Forw mch w As upw str (Bm, Bch).

Lat  $Yd(b) \frac{1}{2} Spn(b) F Sup Fl St : As flg.$ Dor  $Wg \frac{1}{2} Crk(b) Istp Sup St : Forw lge.$ 

Heave Inw-gp Bk Rst:  $1L1\&r\frac{1}{2}$  circ:  $rLr\&l\frac{1}{2}$  circ (H.).

\*Ov-gp Hor Hg: Kn forw ½ circ to Rid Sd ½ Crk (a) Sitt.

Vault | war Hor Sd V.

Mch in sects & w hop.

Run | Dbl mch in file & w L forw rais (3 mins) (1 b) Mch.

Games \*Crab Race. Chase Ball.

Fin Rch Std St: Alt Kn bd w As part.

Rst Cl St: T tn.

Yd (b) St: D.B. w (slow) As fig.

## MEDIUM ADVANCED TO ADVANCED—WITH APPARATUS

#### TABLE I

Intro | Yd Wlk (a) St: Hn tn w Hd bkw bd.

Str St: Hls rais & Kns bd.

Rst Cl St: T tn.

Leg | Wg Lge (a) St: Hd tn.

AF. | Bd Loin Sup Ar St: As upw str (f b) Bd St. T forw

& dnw bd (Bm, Liv.Sup).

Heave Ov-gp Fl Hg: As bd (H.B., Bm).

Ov-gp Fnt Rst: Tn betw Hns to Sd Sitt (P.B.,

Bm, H.B.).

Bal Ret ½ Crk (a) St: Kn bkw str.

Lat  $\frac{1}{2}$  Str  $\frac{1}{2}$  Wg Sd Tow Th Sup St: T sdw bd (Bm).

Abd | Wg Tow F Sup Sitt Tfl (W.B., Bm).

Dor Yd (b) Std Stp (a) St: Alt As flg.

Heave | Inw-gp Betw Rst: Forw & bkw swg (P.B.).

Alt-gp Hg: Sd trav w tn (Bm, H.B., H.L.).

Jump Vault War Hor Fnt V (H., Bm).

Mch Mch & form 4s & form line.

Dbl mch in'figs (f b) Mch.

Games | Twos & Threes. \*Out of Circle.

Fin Bd St: Hd sdw bd.

Rch St: F forw pl w Hls rais

Wg Std St: T sdw bd. St: D.B. w As circ.

#### TABLE 2

Intro | Dg Std St: Hn cl & op w Hd tn.

Yd (b) St: Hls rais w As flg. Wg Wlk (b) St: T sdw bd.

Leg Bd Lge (a) St: As sdw str. [& dnw bd S.B. Rst Elb Sup Std S.B St: Hls rais (f b) Str St: T forw

Heave Ov-gp Ar Hg: As bd (W.B., Bm, P.B.).

Fnt Ln Th Rst:  $L_{\frac{1}{2}}$  circ (rear bar) (P.B.).

Bal | Rch  $\frac{1}{2}$  Crk (b) St : Kn forw bd w As upw rais.

Lat | Str Rid Sitt: T tn w As part (Bch).

Abd | Fnt Ln Rst: F forw pl.

Dor | Wg Forw Ly: T bkw bd (Bch).

Heave Inw-gp Tow St: Spg w L ½ circ to Sd Rid Rst (H.).

Inw-gp Hor Hg: L swg (H.B., Bm).

Jump | war Hi Jp off l (r) F.

Vault | w a r Sit-ov V (H., P.B., Bm).

Mch | Mch in line & whl.

Run | Dbl mch & form outlines (f b) Mch. Games | Cat & Mouse. \*Mounted Wrestling

Fin Yd Std St: Hls rais w Hn tn.

Bd Stp (a) St: Hd tn.

St: D.B. w As forw & upw rais.

## TABLE 3

Intro | Bd Std St: Hls rais w Hd sdw bd.

½ Str ½ Yd St: As ch.

 $\frac{1}{2}$  Rst  $\frac{1}{2}$  Wg St: T forw bd. [(W.B., Bm).

Leg | Rch ½ Crk (b) Istp Sup St: Kn bd w As upw swg S.B. | Wlk (a) S.B. St: F ch (f b) Str Cl St: T forw &

dnw bd (W.B., Bm).

Heave Ov-gp Fl (b) Hg: Hd tn (Bm, P.B.).

Inw-gp Betw Rst: Swg to Fnt Ln Rst (P.B.).

Bal Yd Bal St: Forw & bkw mch (Bch, Bm).

Lat Bd Cl Tn St: T sdw bd.
Abd Str Bk Ly. Alt L rais (4).

Dor | Lge (a) St: As forw & upw swg. Heave | Inw-gp Bk Rst: L ½ circ (H.).

Ov-gp Hg: Rot trav (H.B., Bm, H.L.).

Jump St: Forw (Bkw) jp w As forw & upw swg.

Vault | w a r Hor Sd V (H., P.B., Bm).

Mch | Mch in sects & w Kn forw bd.

Run | Dbl mch in figs (f b) Mch.

Games Circular Tug. Dodge Ball.

Fin Yd (b) Wd St: F obl forw pl w As flg.

Wg St: Hls rais & Kns bd.

Rst St: Tetn.

Bd St: D.B. w Hd bkw bd.

## TABLE 4

Intro Yd (b) St. As flg w Hd tn.

Bd Std Toe St: Alt Kn bd w As upw str.

Str Cl St: T tn w As part,

Leg Wg ½ Crk (b) Istp Sup St: Forw lge (W.B., Bm).

S.B. Yd Up-A Sup S.B. St: Kn forw bd (f b) Rst Wlk

(b) St: T forw & dnw bd.

Ov-gp Ar Hg: As bd w Hd tn (W.B., Bm, P.B.). Heave

Un-gp Bk Rst: Sd trav w tn to Fnt Rst (Bm, P.B.,

H.B.).

Rch Bal Sd St: F sdw pl (Bch, Bm). Bal

Fnt Ln Rst: Tn to Sd Ln Rst. Lat

Bd & Spn (a) F Sup St: Tfl (W.B., Bm, Bch). bdA

Rst Forw Ly T bkw bd (Bch). Dor

Heave Inw-gp Betw Rst: Swg w L circ (P.B.).

Alt-gp Sitt: Hor clb Hd 1st (W.L.).

Tump war Lng Jp off l (r) F.

w a r Betw V w aft sup (H., Bm). Vault

Mch Mch & form Cr. Di.

Run Dbl mch in file & tn into rank (f b) Mch.

\*Running the Gauntlet Team Race. Games

Rch St: Hls rais w As part. Fin

1 Rst 1 Wg Std St: T sdw bd

Yd St: D.B. w Hn tn.

## TABLE 5

Bd St: Fcl & op w Hd bkw & forw bd. Intro

St: F sdw pl w Hls rais & As upw & dnw str.

½ Str ½ Wg St: T sdw bd.

1/2 Crk (b) Istp Sup Spg (a) St: As forw & upw swg Leg

(W.B., Bm). [(W.B., Bm).

S.B. St: Kn forw bd (f b) Rst St: T forw & dnw bd S.B. Heave

Ov-gp Fl Hg: As bd w alt L forw rais (Bm, P.B.).

Inw-gp Fnt Rst: L circ (H.).

Yd ½ Spn (b) St: Hn & Hd tn. Bal

1 Wg Sd Ln Rst: A bd. Lat

Wg Std Fl Kn: As ch to Rst. Abd

Bd Wlk (a) Stp (a) St: As upw str.  $\mathbf{Dor}$ 

Heave | Inw-gp Hor Hg: L swg (H.B., Bm).

\*Ov-gp Hg: Circ to Fnt Rst (H.B., Bm, P.B.).

Jump | St: Upw jp w As sdw & upw swg.

Vault | w a r Hor Scr V (H., Bm).

Mch | Mch & form figs & w Hls rais.

Run Dbl mch in file & form line (f b) Mch.

Games \*Crab Race. Touch Ball. Fin Wg Std St: Hd sdw bd.

Bd St: F forw & bkw pl w As upw & bkw str.

Str Cl St: T tn w As part.

St: D.B. w As sdw & upw rais.

#### TABLE 6

Intro | Rch Std St: Hls rais w alt As upw & dnw swg.

Rst Cl St: T forw bd.

Str Wlk (b) St: As part w Hd tn.

Leg  $Dg \frac{1}{2} Spn (a) F Sup St : Kn bd w Hn tn (W.B., Bm, Bch).$ 

S.B. \( \frac{1}{2} \text{ Crk (a) S.B. St : F bd & str (f b) Str St : T forw & dnw bd (W.B., Bm).} \)

Heave | Alt Cr-gp Sitt: Hor clb Ls 1st (W.L.).

Inw-gp Rid Sd Rst: Ls sdw swg w tn to Fnt Ln Rst (H.).

Bal Wg St: L hor bkw rais w T forw bd

Lat Bd St: Sdw lge
Abd Rst Bk Ly: Ls rais.

Dor Yd (b) Ar Forw Ly: As flg (Bch).

Heave | Inw-gp Betw Rt : Swg w ½ tn (P.B.).

\*Ov-gp Hor Hg: Kn ½ circ to Rid Sd ½ Crk (a) Sitt (H.B., Bm).

Jump | war Hi Jp w l (r) tn (J.R.).

Vault | ½ Crk (a) Sitt: One Hn Hor Sd V (P.B.).

Mch | Mch w ch of rank.

Run Dbl mch & form figs (f b) Mch.
Games Dumb-bell Race. \*Out of Circle.

Fin Wg St: Hls rais & Kns bd.

Yd (b) St: F sdw pl w As flg.

Bd Cl St: Hd sdw bd. St: D.B. w As circ.

## TABLE 7

Intro | Wg Wlk (d) St · Hls rais w Hd bkw bd.

Bd St: Alt As upw & forw str.

Yd (b) St: T tn w As flg. [Bm, Bch).

Leg Rch ½ Spn (b) F Sup St: Hl rais & Kn bd (W.B., S.B. Str Wr Sup S.B. St: Hls rais (f b) Bd Cl St: T forw

& dnw bd.

Heave | Ov-gp Fnt Rst: Hd tn (HB., Bm, P.B.).

Alt-gp Hg · Sd trav w tn & As bd (H.B., Bm, H.L.). Inw-gp Betw Rst : Forw & bkw swg w forw trav on

bkw swg (P.B.).

Bal Rch Bal St: As upw rais (Bch, Bm).

Lat Rst Wlk (b) Tn St: T sdw bd.
Abd Fat Ln Rst: Alt L & A rais.

Dor | St: Toe lge w As forw & upw swg.

Heave \*Ov-gp Hor Hg: Kn ½ forw circ to Rid Sd ½ Crk (a)

Sitt (H.B., Bm).
Tow St: Vert Clb (V.R.).

Jump | Hi St : Dp Jp.

Vault | \*w a r Std V (H., Bm).

Mch w ch of rank & w Hls rais & As upw str.

Games | Hawks & Doves. Tunnel Ball. Fin | Yd St: F bkw pl w Hn tn.

Wg Stp (a) St: Hd tn.

Rch St: D.B. w As upw rais.

#### TABLE 8

Intro | Yd Std St: Hls rais w Hd sdw bd.

Yd (b) St: F forw pl w alt As flg.

Bd St: T tn w As upw str.

Leg | St: Forw lge w As forw & upw swg.

S.B. St: L forw rais (f b) Str St: T forw & dnw bd

(W.B., Bm).

Heave Ov-gp Fl Hg: As bd (Bm, H.B., P.B.).

Sitt: Obl upw clb Hd 1st (W.L.).

Inw-gp Betw Rst: Swg w L circ (P.B.). Rst Bal St: Forw mch w Kn forw bd (Bch, Bm).

Lat \ \frac{1}{2} Bd Sd Ln Rst: A upw str.

Bal

Abd Wg Fl Sitt: Hd tn (Bch).
Dor Yd Stp (a) St: As upw rais.

Heave Ov-gp Fnt Ln Th Rst: Ls circ (rear bar) (P.B.).

\*(circ to) Ov-gp Fnt Rst: Sht un-swg w Kn forw ½

circ to Rid Sd ½ Crk (a) Sitt (H.B.).

Jump | war Lng Jp w tn.

Vault | war ½ Hg Hor Fnt V (Dbl Bm).

Mch Mch & form figs & w Kn forw bd & As upw str.

Game | Basket Ball.

Fin Bd Toe St: Kns bd w (slow) As bkw str.

Yd Wlk (a) St: T sdw bd.

St: D.B. w As circ.

## TABLE 9

Intro | Rch St: Hls rais w As part.

Str Wlk (b) St: T tn w As bd.

St: As forw & sdw str w tn (1 & r).

Leg  $| Bd \frac{1}{2} Spn (a) F Sup Spg (a) St : Hd tn (W.B., Bm).$ 

forw & dnw bd (W.B., Bm).

Heave | Ov-gp Hg: Sd trav (H.B., Bm, H.L.).

Inw-gp Obl Upw Hg: Clb Hd 1st (O.R.).

Ov-gp Fnt Ln Th Rst: Ls bkw shr circ (rear bar)

(P.B.).

Bal Rch Bal Sd St: Sdw mch (Bch, Bm).

Lat | Bd Lge (c) St: As upw str.

Abd Yd Fl ½ Kn: Hn tn.

Dor Str Forw Ly: T bkw & forw bd (Bch).

Heave | Inw-gp Fnt Rst: Ls ½ circ (H.).

\*Alt-gp Hg: Swg w L forw ½ circ to Rid Sd Sitt (H.B.).

Jump | war Hi Jp wabt tn.

Vault | w a r Hi Fnt V (H., Bm).

Mch | Mch & form outlines & hop.

Run Dbl mch w L forw rais (f b) Mch. Games \*Mounted Wrestling. Relay Race.

Fin Yd (b) Wd St: F obl forw & bkw pl w As flg.

Rst Cl St: "T sdw bd.

St: D.B. w As forw & upw rais.

#### TABLE 10

Intro | Yd (b) Toe St: Kn bd w As flg.

1 Str 1 Rch St · As ch w tn.

Rst Std St: T sdw bd.

Leg | Bd Wd St : Adv w obl forw lge.

S.B.  $\frac{1}{2}$  Crk (a) S.B. St: HI rais (f b) Str St: T forw &

dnw bd (W.B., Bm).

Heave \*Ov-gp Hor Hg: Kn forw ½ circ to Rid Sd ½ Crk

(a) Sitt (H.B., Bm).

Ov-gp Sitt: Vert Clb Hd 1st (W.L.).

Inw-gp Rid Rst: Ls forw & bkw shr circ w ½ tn (H.).

Bal \*Yd Hi ½ Crk (a) Sitt: L swg ov (P.B., Bm, H.B.).

Lat Str ½ Spn (b) F Sup Sd Fl St: As part (Bch, Bm, W.B.).

Abd \*Fnt Ln Rst: As bd w Hd tn.

Dor Bd Wlk (a) Stp (a) St: As upw str.

Heave \*Inw-gp Betw Rst: Swg to Shd Rst (P.B.)

\*Ov-gp Hg: Swg w upst to Fnt Rst (H.B.).

Jump | war Hdl Jp (Bch).

Vault | war Hi Scr V (H. Bm).

Mch Ornamental Mch.

Run Dbl mch w Kn forw bd (f b) Mch.

Game Tower Ball.

Fin | Str St: As part w Hd tn.

Bd St: Alt As forw & sdw str. Yd (b) St: T tn w (slow) As flg.

St: D.B. w Hls rais & Kns bd.

## TABLE II

Intro | Bd St: As sdw str w Hd bkw bd.

Rch Std Toe St: Alt Kn bd w As upw rais.

Wg Stp (a) St: As ch to Rst.

Leg | Str ½ Crk (b) Istp Sup Spg (a) St. As forw & bkw swg (W.B., Bm).

S.B. | \frac{1}{2} \text{Spn (a) S.B. St: F bd & str (f b) Bd Wlk (b) St: T forw & dnw bd (W.B., Bm).

Heave | Inw-gp Bk Rst: L circ (H.).

\*Ov-gp (b) Hg: Sd trav (H.B., Bm). \*Ov-gp Fnt Rst: Sht un-swg w upst.

Bal Yd Bal St: L sdw rais w As upw rais (Bch, Bm).

Lat Bd Sd Tow Th Sup St: L sdw rais w T sdw bd & As upw str (Bm).

Abd \*Fnt Ln Rst: As bd w alt L bkw rais.

Dor  $Wg Hor (b) Istp Sup \frac{1}{2} St : As forw & upw swg (W.B., Bm).$ 

Heave \*Inw-gp Obl Dnw Hg: Ch to Inw-gp Obl Upw Hg (O.R.).

\*Inw-gp Betw Rst: Swg to Hn Rst (b) (P.B.).

Jump | war Hi Jp w tn.

Vault \*w a r Std V (H. lengthways).

Mch Ornamental Mch.

Games | Chase Ball. Club Race.
Fin | Rst St: F obl forw & obl bkw pl w Hls rais.

½ Str ½ Rch St: As ch.

Yd Cl St: T tn w As upw rais.

St: D.B. w As circ.

## TABLE 12

Intro | Rch Wlk (e) Toe St: Kns bd w As part.

½ Str ½ Yd St: As ch w abt tn.

Rst Cl Tn St: T sdw bd.

Leg St: Adv w forw lge & As forw & upw swg.

S.B.  $\frac{1}{2}$  Gsp  $\frac{1}{2}$  Wg S.B. St: Kn forw bd (f b) T forw & dnw bd (W.B., Bm).

Heave | Inw-gp Rid Sd Rst: L circ (H.).

\*Inw-gp Obl'Dnw Hg: Clb Ls ist (O.R.).

\*Inw-gp Shd Rst: Forw rl to Rid Sitt (P.B.).

Bal Yd  $\frac{1}{2}$  Crk (a) Sitt: Ls swg ov (H.B., Bm). Lat 1 Bd Sd Ln Rst: L sdw rais w A upw str.

Abd 1 Spn (a) F Sup Fl St: As forw & upw swg (Bch. Bm, W.B.).

Dor Yd (b) Ar Forw Ly: Alt As flg w Hd tn (Bch). Heave \*(Upst to) Fnt Rst: Forw rl & sht un-swg (H.B.).

\*Ov-gp Hg: Swg w rise at bk to Fnt Rst (H.B.).

Tump war Long Jp.

Vault Betw Rst: Swg & Hi Fnt V w 1 tn (P.B.).

Mch & form outlines & w Kn forw bd & As sdw Mch str.

Game Basket Ball.

½ Rst ½ Wg St: T forw bd. Fin

Dg St: Hls rais w Hn & Hd tn. St: T tn w As sdw & upw rais.

N.B.—All leg circles on horse are performed with use of pommels.

#### FOR TEN MINUTES ON A WARM DAY

Wg St: Hls rais w Hd tn. Intro

Str St: As part.

Rst Std St: T sdw bd.

Bd Wlk (b) St: Hls rais & Kns bd. Leg

(Yd (b) St: T bkw bd w (slow) As flg (f b) A.F. Abd

& Dor Rst Cl St · T forw & dnw bd.

St: Alt As upw & sdw str w l & r tn. Heave Str ½ Crk (a) St: Kn forw & bkw str. Bal & Abd Rch Wlk (a) St: T tn w As part. Lat Mch w Hls rais & w Kn forw bd. Mch

Chase Ball. Game

Bd Wd St: F obl forw & obl bkw pl; Fin

Wg St. T forw bd.

St: D.B. w As forw & upw rais.

#### FOR TEN MINUTES ON A COLD DAY

Intro Mch w As sdw & upw str.

Bd Wlk (a) St: His rais w As upw str (quickly).

Yd (b) Cl Tn St: As flg.

St: Forw lge w As forw & upw swg. Leg & Dor

A.F. & (Bd Std Ar St: As upw str (f b)

Str Std St: T forw & dnw bd (quickly). Abd St: Mk-tm w As forw sdw upw & dnw str. Heave

Bal & Dor Rch & Spn (b) St: As sdw swg.

½ Bd ½ Wg Wlk (b) St: T sdw bd w As upw str. Lat

Jump St: Std ip w As sdw swg.

Hawks & Doves. Game

Yd Toe St: Kns bd w As upw rais. Fin

St: D.B. w Hn & Hd tn.

## SPECIMEN MUSIC TABLES

# GROUP OF ELEMENTARY FREE EXERCISES FOR WORKING TO MUSIC

(The numbers in brackets represent the counts to which each movement is performed.)

#### INTRODUCTORY

#### Exercise 1.

- (1) 1 F forw pl w As sdw rais.
- (2) Hls rais & Hn upw tn w Hd tn to 1.
- (3) Hls low & Hn dnw tn w Hd tn to fnt.
- (4) F tog w As sdw low.

Repeat to right.

#### Exercise 2.

- (1) 1 F sdw pl w As bd to Rst.
- (2) T sdw bd
- (3) T upw str.
- (4) F tog w As dnw str.

Repeat to right.

## LEG

## Exercise 3.

- (1) Hls rais w As bd.
- (2) Kns bd w As forw str.
- (3) Kns str w As bd.
- (4) Hls low w As dnw str.

Repeat.

## ARCH FLEXION

## Exercise 4.

- (1) l F bkw pl w As forw bd.(2) T bkw bd w As flg.
- (3) T upw str w As forw bd.
- (4) F tog w As dnw str.

Repeat to right.

#### COMPLEMENTARY

## Exercise 5.

- (1) l F sdw pl w As sdw & upw swg.(2) T forw & dnw bd.
- (3) T forw & upw str.
- (4) F tog w As sdw & dnw swg.

Repeat to right.

## HEAVE, BALANCE, & DORSAL

## Exercise 6.

- (I) 1 Kn forw bd w As bd.
- (2) 1 Kn bkw str to Toe Lge w As upw str.
- (3) 1 Kn forw bd w As bd.
- (4) 1 Kn dnw str w As dnw str.

Repeat to right.

## ABDOMINAL

## Exercise 7.

- (I) His rais.
- (2) Kns f bd & Hns on ground.
- (3) 1 F bkw pl.
- (4) r F bkw pl to Fnt Ln Rst.
- (5) 1 F forw pl.
- (6) r F forw pl.
- (7) Kns str to Toe St.
- (8) Hls low.

Repeat.

#### LATERAL

#### Exercise 8.

- (1) 1 F sdw lge w As bd.
- (2) As sdw str.
- (3) As bd.
- (4) F tog w As dnw str.

Repeat to right.

### JUMPING

#### Exercise 9 (S.P. Hns on Hips).

- (1) 4 Hops on 1 F w 4 taps of r Toe in fnt (4 counts).
- (2) 4 Hops on r F w 4 taps of 1 Toe in fnt (4 counts).
- (3) (a) w a jp F astd.
  - (b) wajp cr r F in fnt of l.
  - (c) wa jp cr 1 F in fnt of r.
  - (d) wajp cr r F in fnt of 1.
- (4) (a) wa jp F astd.
  - (b) wa jp cr l F in fnt of r.
  - (c) wajp crrF in fnt of l.
  - (d) wajp F tog pl.

#### FINISHING

#### Exercise 10.

(1) (2) (3) (4) D.B. w Hls rais & As circ. (5) (6) (7) (8)

Repeat.

## GROUP OF MEDIUM ADVANCED DUMB-BELL EXERCISES FOR WORKING TO MUSIC

(The numbers in brackets represent the counts to which each movement is performed. The finishing position of each movement is the starting position for the next.)

#### INTRODUCTORY

#### Exercise I.

- (1) 1 F forw pl w As forw swg
- (2) Hls rais w l A upw & r A dnw swg
- (3) Hls low w As forw swg
- (4) F tog w As dnw swg.

Repeat wr F forw pl.

#### Exercise 2.

- (I) 1 F sdw pl w As sdw swg
- (2) Hls rais w l A upw & r A dnw swg
- (3) Hls low w As sdw swg
- (4) F tog w As dnw swg.

Repeat w r F sdw pl.

## LEG, ARCH FLEXION, & HEAVE

## Exercise 3.

- (1) l F bkw pl w As forw- & upw swg
- (2) (3) (4) T bkw bd w (slow) As bd:
- (I) 1 tn
- (2) (3) (4) T forw bd w (slow) As sdw str:
- (I) T upw str w As bd
- (2) As upw str
- (3) As bd
- (4) wr tn As forw str:
- (I) F tog w Hls rais & Kns f bd & As sdw swg
- (2) Kns str & Hls low w As dnw swg
- (3) (4) Remain in St.

Repeat wr F bkw pl.

#### BALANCE

## Exercise 4.

- (1) 1 L bkw rais w l A forw & upw swg
- (2) 1 Kn forw bd w 1 A forw bd & r A sdw swg
- (3) 1 Kn sdw str w As  $\frac{1}{2}$  r circ to  $1\frac{1}{2}$  Yd r  $\frac{1}{2}$  Yd (b)
- (4) 1 L low w 1 A dnw swg & r A dnw str to St.

  Repeat w r L sdw rais.

#### LATERAL

### Exercise 5.

- (I) 1 F sdw pl w As bd
- (2) 1 F selw lge w l Hn H f & r A upw str
- (3) (4) Remain in ½ Str ½ Wg Lge (c) St:
- (I) r A bd
- (2) r A upw str
- (3) r A bd
- (4) r A upw str:
- (I) 1 F sdw pl w r A l circ & l A upw str
- (2) (3) (4) Remain in Str Wlk (c) St:
- (I) T l tn w As part
- (2) T forw tn w As forw swg
- (3) F tog w As dnw swg
- (4) Remain in St.

Repeat wr F sdw pl & r F sdw lge.

#### ABDOMINAL

## Exercise 6.

- (1) w 1 l tn l F forw pl w l A forw & upw swg
- (2) 1 A forw & dnw swg & r A forw & upw swg
- (3) (4) Remain in ½ Str Wlk (a) St.
- (I) w ½ r tn l Kn bd to ½ Kn w r A l circ & l A forw & upw swg
- (2) (3) (4) T bkw fl:
- (1) 1 Kn str w l tn & l A \( \frac{3}{4} \) l circ & r A sdw swg to Yd Std St

- (2) (3) (4) T l sdw bd:
- (1) w 1 1 tn T upw str w As forw swg
- (2) F tog w As dnw swg to St
- (3) (4) Remain in St.

Repeat w 1 r tn & r F forw pl.

#### DORSAL

#### Exercise 7.

300

- (1) (2) As forw bd w 1 tn
- (3) 1 F forw lge w As flg
- (4) Remain in Yd Lge (a) St:
- (I) Hns upw tn
- (2) Hns dnw tn
- (3) Hns upw tn
- (4) Hns dnw tn:
- (I) As forw swg
- (2) l F forw pl w As upw swg
- (3) (4) Remain in Str Wlk (a) St:
- (1) w r tn As  $\frac{3}{4}$  l circ to r  $\frac{1}{2}$  Yd l  $\frac{1}{2}$  Yd (b)
- (2) F tog w l A dnw str & r A dnw swg
- (3) (4) Remain in St.

Repeat wr tn & r F forw lge.

## JUMPING & FINISHING

## Exercise 8.

- (1) (2) F astd pl w As sdw str
- (3) (4) Remain in Yd Std St:
- (I) (2) (3) (4) (5) (6) (7) (8) Std jp w As dnw swg to Yd Std Toe St (4 times):
- (1) (2) (3) (4) 1 Kn bd w (slow) As forw swg:
- (1) (2) (3) (4) l Kn str w As part.
- (1) (2) (3) (4) r Kn bd w (slow) As forw swg:
- (1) (2) (3) (4) r Kn str w As part:
- (I) (2) F tog w His low & As dnw str
- (3) (4) Remain in St.

## GROUP OF ADVANCED FREE EXERCISES FOR WORKING TO MUSIC

(The numbers in brackets represent the counts to which each movement is performed. The finishing position of each movement is the starting position for the next)

#### INTRODUCTORY

#### Exercise I.

- (I) l F sdw pl w As forw & upw swg
- (2) r F sdw pl w r A sdw & l A forw bd
- (3) (4) Remain in ½ Yd ½ Yd (b) Std St:
- (I) Hls rais w l A flg & r A forw bd w Hd tn to l
- (2) Hls low wr A flg & l A forw bd w Hd tn to r
- (3) Hls rais w l A flg & r A forw bd w Hd tn to l
- (4) Hls low w l A forw bd & Hd forw tn:
- (I) 1 A forw & r A upw str
- (2) r A forw & l A upw swg
- (3) 1 A forw & r A upw swg
- (4) 1 A upw swg:
- (I) As bd to Rst Std St
- (2) w jp F tog & As sdw & dnw swg
- (3) (4) Remain in St.

Repeat opposite side.

#### LEG

## Exercise 2.

- (I) As bd
- (2) 1 F bkw pl w As upw str
- (3) (4) Remain in Str Wlk (e) St:
- (I) F tog w Hls rais & As 3 inw circ
- (2) Kns bd w As forw swg
- (3) Kns str w As upw swg
- (4) Hls low w As bd:
- (1) (2) (3) (4) T forw bd:
- (1) T upw str w l L bkw rais & As upw str
- (2) F tog w As swg forw & dnw
- (3) (4) Remain in St.

Repeat opposite side.

#### ARCH FLEXION

### Exercise 3.

- (1) As forw rais
- (2) 1 F bkw in Toe Lge w r A 11 bkw circ & 1 A dnw swg
- (3) (4) Remain in ½ Str Toe Lge St:
- (1) 1 A forw & upw swg
- (2) 1 Kn low to ½ Kn & As forw bd
- (3) (4) Remain in Yd (b)  $\frac{1}{2}$  Kn:
- (1) (2) (3) (4) T bkw bd w (slow) As flg:
- (1) I Kn forw bd ( $\frac{1}{2}$  Crk (a) St) w As forw swg
- (2) l Kn dwn str w As dnw swg
- (3) (4) Remain in St.

Repeat opposite side.

## COMPLEMENTARY HEAVE & BALANCE

#### Exercise 4.

- (1) l F bkw pl w As forw & upw swg
- (2) w l tn T forw & dnw bd
- (3) (4) Remain in Str Stp (b) Std St:
- (1) F tog w T upw str & As bd
- (2) As forw str
- (3) (4) wr tn As sdw str:
- (1) l L sdw rais w As upw swg
- (2) As sdw swg
- (3) As upw swg
- (4) As sdw swg:
- (1) As inw circ
- (2) 1 L low & As sdw & dnw swg
- (3) (4) Remain in St.

Repeat opposite side.

## LATERAL & ABDOMINAL

## Exercise 5.

- (1) 1 F sdw pl w As bd
- (2) 1 F sdw lge w As sdw str
- (3) (4) Remain in Yd Lge (c) St:
- (I) w l tn Hns on ground
- (2) 1 L bkw str to Fnt Ln Rst

- (3) (4) Remain in Fnt Ln Rst:
- (1) tn to Sd Ln Rst on l Hn & r A bd
- (2) r A upw str
- (3) r A bd
- (4) tn to Fnt Ln Rst:
- (1) Kns bd w As forw rais (Rch Spg (a) St)
- (2) Kns str w As upw swg
- (3) Hls low w As forw & dnw swg
- (4) Remain in St.

Repeat opposite side.

## DORSAL & JUMPING

#### Exercise 6.

- (1) (2) (3) (4) w 3 steps forw jp w As 1½ bkw circ (remain in Rch Spg St):
- (1) As sdw swg w Hd l tn
- (2) As forw swg w Hd forw tn
- (3) As sdw swg w Hd r tn
- (4) As forw swg w Hd forw tn:
- (1) Kns str & 1 L sdw pl w T forw bd & As bkw swg
- (2) As forw & upw swg
- (3) As forw & bkw swg
- (4) As forw & upw swg:
- (1) l F bkw (Toe Sup) pl w As bd
- (2) l abt tn w As upw str
- (3) F tog w As forw & dnw swg
- (4) Remain in St.

Repeat opposite side.

## FINISHING

## Exercise 7.

- (1) 1 F forw pl
- (2-8) D.B. w forw Hl rais & As circ:
- (I) r abt tn
- (2-8) D.B. w forw Hl rais & As circ:
- (I) F tog pl
- (2) (3) tn r abt
- (4) Remain in St.

## GROUP OF ADVANCED WAND EXERCISES FOR WORKING TO MUSIC

(The numbers shown in brackets represent the counts to which the movements are performed. The finishing position of one movement is the starting position for the next. All exercises start with the wand down in front.)

N.B.—In "A forw bd" the hand is in front of the opposite shoulder.

#### Introductory

## Exercise I (Over-grip).

- (I) l A forw bd
- (2) 1 F obl forw pl w l A obl upw str & r A forw bd
- (3) (4) Remain in  $\frac{1}{2}$  Str  $\frac{1}{2}$  Yd (b) Wlk (b) St:
- (I) Hls rais w l A forw bd & r A forw & bkw swg
- (2) Hls low w l A obl upw str & r A forw bd
- (3) Hls rais w l A forw bd & r A forw & bkw swg
- (4) Hls low w l A obl upw str & r A forw bd:
- (1) F tog w l A forw bd & r A forw str
- (2) (3) (4) Remain in ½ Rch ½ Yd (b) St:
- (I) 1 A upw str & r A upw swg
- (2) As forw & dnw swg
- (3) (4) Remain in St.

Repeat w r F obl forw pl & reversing the other movements.

## Exercise 2 (Over-grip).

- (1) As forw rais
- (2) 1 F sdw pl w As upw swg
- (3) (4) Remain in Str Wlk (c) St:
- (I) Hls rais w Wrs forw bd
- (2) Hls low w Wrs bkw bd
- (3) Hls rais w Wrs forw bd
- (4) Hls low w Wrs upw str:
- (I) F tog & Hls rais & Kns bd w As \( \frac{1}{2} \) r circ to \( \frac{1}{2} \) Yd \( \frac{1}{2} \) Yd \( \frac{1}{2} \) (b) Spg (a) St
- (2) (3) (4) Remain in ½ Yd ½ Yd (b) Spg (a) St:
- (I) Kns str w l A forw swg & r A forw str
- (2) Hls low w As dnw swg
- (3) (4) Remain in St.

Repeat w r F sdw pl & reversing other movements.

## Exercise 3 (Over-grip).

- (I) As forw & upw swg
- (2) l F bkw pl w As bd (wand beh N)
- (3) (4) Remain in Bd Wlk (e) St:
- (I) (2) (3) (4) T forw bd:
- (I) Hd l tn
- (2) Hd forw tn
- (3) Hd r tn
- (4) Hd forw tn:
- (I) T upw str w As upw str
- (2) F tog w As forw & dnw swg
- (3) (4) Remain in St.

Repeat w r F bkw pl & reversing other movements.

## Exercise 4 (Over-grip).

- (I) r A forw bd
- (2) 1 F obl bkw pl w l A sdw & upw swg
- (3) (4) Remain in ½ Str ½ Yd (b) Wlk (d) St:
- (1) (2) (3) (4) Tr sdw bd:
- (1) Tupw str w 1 tn & r A upw str
- (2) As bd (wand in front)
- (3) (4) Remain in Bd Wlk (c) St:
- (1) w 1/8 r tn As forw str
- (2) F tog w As dnw swg
- (3) (4) Remain in St.

Repeat w r F obl bkw pl & reversing other movements.

## LEG, ARCH FLEXION, & HEAVE

## Exercise 5 (Under-grip).

- (I) As forw & upw swg
- (2) 1 F forw lge w 1 A forw bd & r A sdw swg w Wr inw tw
- (3) (4) Remain in ½ Yd Tw ½ Yd (b) Lge (a) St:
- (I) 1 Kn str & r L bkw rais w l A l circ ov r & r A forw bd w Wr outw tw to ½ Yd ½ Yd (b) Spn (c) ½ St:
- (2) (3) (4) Remain in ½ Yd ½ Yd (b) Spn (c) ½ St:
- (r) 1 tn & r Kn bd to ½ Kn w As forw swg & 1 Wr outw tw to Rch ½ Kn

- (2) T bkw bd w As upw rais
- (3) T upw str w As forw swg
- (4) T bkw bd w As upw swg:
- (I) Kns str & T upw str w r L bkw rais & l A forw str w Wr inw tw & r A forw bd
- (2) r A r hor circ ov l w l Wr outw tw to Rch ½ Spn (c) St:
- (3) r L low w As dnw swg
- (4) Remain in St.

Repeat w r F forw lge & reversing other movements.

#### BALANCE & DORSAL

## Exercise 6 (Under-grip).

- (I) As forw swg w l Wr inw tw
- (2) 1 F sdw lge & 1 A forw bd w Wr outw tw & r A sdw swg
- (3) (4) Remain in ½ Yd ½ Yd (b) Lge (c) St:
- (I) I tn w r L bkw rais & r A 3/4 forw circ (r end of wand rests on floor)
- (2) (3) (4) Remain in ½ Rch ½ Yd (b) Hor (b) ½ St:
- (1) r tn w r L low to Wlk (c) & l A upw str w Wr inw tw & r A upw swg
- (2) T forw & dnw bd w l Wr outw tw
- (3) (4) Remain in Str Wlk (c) Stp (b) St:
- (I) T forw & upw str & l A forw bd w Wr outw tw
- (2) 1 L sdw rais w 1 A upw str
- (3) 1 L low w As forw & dnw swg & 1 Wr outw tw
- (4) Remain in St.

Repeat w r F sdw lge & reversing other movements.

## BALANCE & ABDOMINAL

## Exercise 7 (Under-grip).

- (I) 1 A forw rais w Wr inw tw & r A forw bd
- (2) 1 Kn forw bd wr Ar circ ov 1 & 1 Wr outw tw
- (3) (4) Remain in Rch 1/2 Crk (a) St:
- (1) (2) (3) (4) 1 Kn bkw str w As upw rais:

- (1) (2) (3) (4) r Kn bd w T forw bd & As bd (wand beh N) to Bd Toe Lge St:
- (I) r Kn str & T upw str w l L forw swg & As upw str to Str ½ Spn (a) St
- (2) 1 L low w As forw & dnw swg
- (3) (4) Remain in St.

Repeat w r Kn forw bd & reversing other movements.

#### LATERAL

Exercise 8 (Under-grip).

- (1) Hls rais w As forw rais
- (2) Kns f bd & 1 A dnw swg w Wr inw tw & r A forw bd (1 end of wand rests on ground)
- (3) (4) Remain in ½ Yd (b) Spg (b) St:
- (I) r F sdw pl w r A flg (r Hn releases gsp)
- (2) r A bkw swg (wand is directed obl across bk & gsp w r Hn)
- (3) l L sdw pl (beh r) to Sd Ln Rst
- (4) Remain in Sd Ln Rst:
- (1) (2) (3) (4) Mch  $\frac{1}{4}$  circ in 4 steps:
- (I) I tn & r Kn forw bd
- (2) 1 tn w 1 Kn bd & r Kn str to Lge (c) & 1 A forw bd w
  Wr inw tw & r A sdw swg (r Hn releases gsp & regsps in ½ Yd ½ Yd (b) Lge (c) St)
- (3) 1 tn & 1 F forw pl w 1 A upw str & r A upw swg to  $\frac{1}{2}$  Str Tw  $\frac{1}{2}$  Str Wlk (a) St:
- (4) F tog & As forw & dnw swg w l Wr outw tw.

  Repeat, reversing movements.

## JUMPING

Exercise 9 (Over-grip).

- (1)  $1 A_{\frac{1}{2}} Yd(b)$ ,  $r A_{\frac{1}{2}} Dg$ : 4 Hops on 1 F obl forw 1 w r L bkw rais (4 counts)
- (2) r A ½ Yd (b), 1 A ½ Dg: 4 Hops on r F obl forw r w l L bkw rais (4 counts)
- (3)  $r A \frac{1}{2} Yd (b)$ ,  $l A \frac{1}{2} Str : w \frac{1}{2} r tn 4 hops on spot on alt F w Kn forw bd (4 counts)$

- (4) Repeat I (4 counts)
- (5) Repeat 2 (4 counts)
- (6) Repeat 3 (4 counts)
- (7) As in Str: Reel step 1 & r (8 counts)
- (8) As in Bd: Crosswise step 1 & r (8 counts)

#### FINISHING

#### Exercise TO.

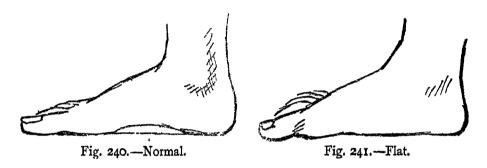
- (1) 1 F sdw w As forw swg
- (2) r F sdw w As upw swg
- (3) (4) Remain in Str Std St:
- (I) 1 Kn bd w r A sdw low & 1 Hn on Hd
- (2) 1 Kn str w As upw str
- (3) r Kn bd w l A sdw low & r Hn on Hd
- (4) r Kn str w As upw str:
- (I) (2) (3) (4) Kns bd (slow) w Hls rais & As bd (wand beh N):
- (I) w Hls low & Kns str l F inw pl & As upw str
- (2) r F inw & As forw & dnw swg
- (3) (4) Remain in St.

Repeat, reversing movements.

## SPECIAL EXERCISES

## FLAT FOOT

General Remarks.—The bony structure of the foot forms two arches, one from front to rear (antero-posterior), and the other from side to side (lateral). Not only are the bones shaped to follow these arches, but powerful ligaments and



muscles serve to maintain them after the manner of strings to a bow.

The astragalus bone, upon which the greater part of the weight is centred, acts as a keystone, and pressure downwards tends to force the remaining bones apart and stretch the ligaments and muscles.

Symptoms of Flat Foot.—The dropping of the inner side of the foot leads to flattening, so that that portion touches the ground, hence the term "Flat Foot." Many surgeons, however, take exception to this term, and diagnose it "everted" foot, owing to the overturned position which arises, and also the fact that the plane of the foot takes an outward direction. Others maintain that the mechanism of the foot in no way resembles an arch, and they describe the condition under survey as "adducted" or "pronated" foot. (See Figs. 240-244.)

In addition to the footflattening, it turns outward, the ankles tend to knock together, and the heel widens and flattens. A test for flat foot may be made by covering the foot with chalk and taking an impression on brown paper. With a normal foot, the inner side, where the arch is situated, will remain blank, but if defective the extent will be shown by the marking.

Causes .- Many causes have been suggested for flat foot, but malformation of the big toe is probably the most prevalent, and this frequently is due to improper foot-wear. Disease and deformity, weak health, corns, bunions, and rheumatism will account for many cases, while strain from long standing and carrying heavy weights are responsible for others.







Fig. 243.-Flat.



Fig. 244.-Flat.

Shop assistants, barmaids, nurses, waiters, barbers, motor-men, warehousemen, bakers, porters, etc., form a large proportion of the cases in the last category.

Effects.—In several instances of flat foot, pain and fatigue accompany standing, walking, or running. The foot loses its power and spring, as well as its shape, and walking becomes more in the nature of a waddle. Excessive perspiration. noxious smells, knock knees, spinal curvature, and varicose veins are occasionally present.

Treatment.—Heels raising, heels raising and knees bending, marching on the toes and outer side of foot, dancing, adduction and abduction, extension and flexion of the foot, are exercises which assist in restoring the normal condition, providing the deformity has not been allowed to go too far. Special boots or shoes, instep elevators and bandages, may also be advisable, although many authorities severely criticise them, and such provisions do not come within the range of ordinary gymnastic treatment. Advanced cases of flat foot should only be taken in hand under the guidance of a surgeon.

#### ROUND SHOULDERS AND FLAT CHEST

General Remarks.—Round shoulders may or may not be due to accentuated forward curvature of the spine, although any stooping position is generally placed under that heading.

Under normal conditions the spine exhibits three curves the cervical, dorsal, and lumbar, and increase of these beyond certain limits tends to deformity. When the dorsal curve increases its backward bend it is known as "Kyphosis." Undue hollow back frequently sets up a compensating curve in the dorsal region, giving rise to a second type of round back, or the shoulders are sometimes carried forward in their lateral plane without any deviation of the spine from normal. The last named is mainly due to defective shoulder joints and contracted pectoral muscles.

Symptoms.—Hanging shoulders, head bent forward, round back, and protruding shoulder-blades are the most notable features, but these almost invariably are accompanied by defective shoulder action, narrow chest, displacement of the ribs, and general deformity of the thorax The muscles of the back are elongated and those of the chest shortened. When hollow back also has developed, the pelvis is displaced, and the whole carriage departs from its proper plane. (See Figs. 245, 251.)



Causes.—Disease, general weakness, overgrowth, insufficient food, lack of fresh air and exercise, improper attitudes adopted during school life (especially while reading, writing, and sewing), prolonged bending forward as demanded in certain forms of workshop and office life, shortsightedness, heavy weights continually carried on the shoulders, or clothes improperly supported by the shoulder girdle, are among the causes of round shoulders and flat chest.

Effects.—As the symptoms suggest, this deformity will affect the carriage of the body, and by displacing certain parts the organs within will require to accommodate themselves to the circumstances. This cannot usually be done without some adverse effect on their functions. It has been stated that children with round shoulders are as a rule below the average standard in development and vigour. Their vitality from the health point of view also is below standard, for the cramped position of the chest alone renders a predisposition to lung, and possibly heart, trouble.

Undoubtedly an abnormal condition of the spine changes the equilibrium of the body, and once the balance is upset, unless something is done to counteract it, the situation increases for the worse.

Treatment.—Good food, plenty of fresh air, proper clothing, suitable exercises, properly constructed desks, correction of improper attitudes, and attention to eyesight are the first remedies.

Corrective exercises will depend on the degree to which the deformity has attained, and the nature of same. In the early stage, where the curve takes the form rather of poking chin, "head backward bending with resistance" may suffice to remedy the defect.

For round shoulders, forward curvature, and flat chest, the following are suitable:

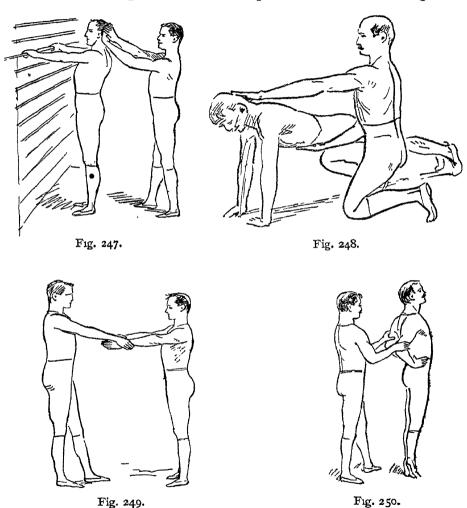
St: Hd bkw bd w resist.—The resistance is supplied by placing both hands behind the student's head, the right hand across the left, and exerting slight pressure as the head backward bending is performed. (See Fig. 246.)

Rch Gsp St: Hd bkw bd w resist.—The student grasps the wall bars (beam, etc.) at reach height, which enables more power to be obtained. Hence more resistance can be applied, and the exercise generally strengthened. (See Fig. 247.)

Fnt Ln Rst: Hd bkw bd w resist.—This exercise can only be used for short periods, as the "Front Leaning Rest" is difficult to maintain. At the same time it is a very valuable

movement, inasmuch as it adds to the effect of the head backward bending by counteracting hollow back, so frequently accompanying round back. (See Fig. 248.)

Rch St: As part w resist.—A position is taken facing the



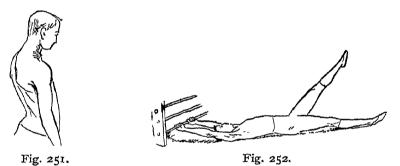
student, and the wrists grasped with "inward-grip." As the student carries the arms sideways, resistance is applied necessitating additional work on the part of the dorsal muscles. The arms are then pulled gently forward, while the student resists. (See Fig. 249.)

Wg St: Hl rais w Chest exp.—From a standing position behind the student the elbows are grasped with "inwardgrip." As the "heel raising" is performed, the elbows are pressed toward each other, creating a strong stretching of the chest muscles. (See Fig. 250. The illustrations should have shown the chin of the patient drawn in.)
All exercises in the "Dorsal Group" are corrective for

round back, round shoulders, and flat chest.

#### HOLLOW BACK

General Remarks.—Abnormal hollow back involves a forward tilting of the pelvis and undue curvature of the lumbar Shortening of the psoas and iliacus muscles will some-



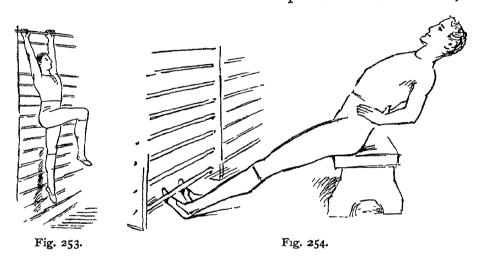
times cause this tilting, and pulling the sacrum forward the lumbar vertebræ take up the curve, usually leading to a compensating curve in the dorsal region. Weakness of the abdominal muscles or extensors of the back, disease of the hip. or deformity of the pelvis may be responsible.

Symptoms—The hip bones and abdomen protrude forward, weakness is experienced in the lower part of the back, and backache is common. Owing to the equilibrium of the body being upset, other parts endeavour to accommodate themselves to the altered conditions, and a faulty carriage results. Figs. 245, 251.)

Causes.—General weakness, overgrowth, insufficient food, lack of fresh air and exercises, frequent adoption of faulty attitudes, and carrying heavy weights in front.

Effects.—It is difficult to detail special effects which ensue from excessive hollow back, but general weakness, aching back, and displacement of the abdominal organs are amongst them, and, as previously mentioned, derangement of the spine invariably involves other changes which may or may not have serious consequences.

Treatment.—As the position of the pelvis is so vital to the lumbar curve, attention should be centred upon it. To correct the tilting, therefore, all forms of abdominal exercises which tend to shorten the muscles and lift the pelvis are recommended,



among which the following are especially suitable (see Figs. 252-254):

Ov-gp Hg: Kn forw bd, or L forw rais, with progression.

St: Fnt Ln Rst with progression

Str Gsp Ly: Kn forw bd, or L forw rais, with progression.

Sitt: T fl with progression.

## LATERAL CURVATURE (SCOLIOSIS)

General Remarks.—Lateral curvature of the spine also includes twisting of the spine. There are so many forms of this defect that it is impossible to make more than a bare reference to it in the short chapter at disposal in this work.

The most common forms are due to the vertebræ and intervertebral discs departing from the vertical plane and becoming misshapen through continual adoption of faulty attitudes, or one-sided use of the body. In some instances the curve will begin in the lumbar region, and being situated low down the slightest deviation tends to throw the upper part of the trunk proportionately over. To counteract this and restore equilibrium, a compensating curve may ensue. Owing to the whole of the thorax depending on the position of the spine, any alteration of the latter involves a change in the angle of the ribs and breastbone, also displacement of the shoulders.

Symptoms.—Viewed from the rear, the median line of the trunk shows a distinct deviation from the vertical position, the shoulder-blades differ in their distance from the spine, the shoulders are uneven in height, resulting in the spaces between the trunk and the arms being dissimilar when the latter hang loosely at the sides. When "trunk forward and downward bending" is performed with the arms in "reach," the ribs show an uneven convexity outward from the spine. The iliac crest of one hip is higher than the other. Viewed from the front, the breast-bone will in some instances exhibit displacement from the central line. (See Fig. 255.)



Fig. 255.

Causes.—Injury to the trunk or disease of the lungs will cause a leaning towards one side, unevenness in the length of the legs in turn creating a lateral tilt of the pelvis and sacrum, overgrowth, weakness, faulty postures when standing or sitting, and continual use of one side of the body as demanded in certain forms of employment.

Effects.—Any alteration in the shape of the thorax involves a change in the position of the internal organs. Up to a point this may not cause any ill effect beyond upsetting the carriage of the body, but once a curve has started there is no knowledge how far it will proceed unless attended to. In more advanced stages the intervertebral discs become so mis-

shapen that the vertebræ actually rub against each other or join up, causing pain and decreasing the mobility of the spine, while the changed position of the ribs so unbalances the thoracic cavity that the lungs or heart become affected.

Treatment.—Remedial exercises for lateral curvature should always be applied by an expert, otherwise additional curves may be brought about, or those already in existence accentuated. The history of a case will in many instances decide the treatment—e.g., if one leg is longer than the other, before commencing any form of corrective exercise the disparity in question must be remedied. "Trunk sideways bending" and "trunk turning" in various forms are corrective, provided always that they are adapted to the special requirements. "Heaving exercises" taken with the hands at different heights in the "hanging" position will also tend to lift one shoulder or strengthen one side. A change of employment may be necessary to avoid continual one-sided use of the body, or remaining long periods in injurious attitudes.